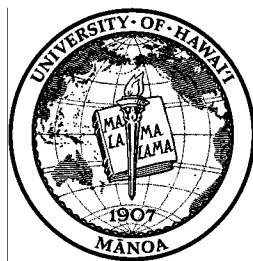


**Trends in the College Experiences of Undergraduates  
at the University of Hawai'i at Mānoa  
from 1990 to 2002**



Joan Y. Harms, Ph.D.  
Office of the Vice President for Student Affairs  
University of Hawai'i at Mānoa  
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**Executive Summary**  
**Trends in the College Experiences of Undergraduates**  
**at the University of Hawai'i at Mānoa**  
**from 1990 to 2002**

The purpose of this study is to describe trends in the undergraduate experiences as reported by University of Hawai'i at Mānoa students. Respondents include a representative sample of undergraduates in 1990, 1993, 1996, 1999 and 2002.

The College Student Experiences Questionnaire(CSEQ), a nationally known instrument used by more than 500 colleges and universities, is being used to measure undergraduate experiences inside and outside the classroom. The results will be widely distributed to promote discussions on key issues affecting undergraduate students and to enhance their educational experiences through improved programs and services.

Results can be compared with national norms but comparisons should be made with care. UH-Mānoa is using the CSEQ to measure the undergraduate experience. Most institutions are using the CSEQ to measure the freshman experience and, therefore, are sampling mainly freshmen. Also UH-Mānoa is a commuter campus as well as a campus where most students are employed while attending the University. Most norm group institutions are residential campuses where the majority of students do not hold jobs while attending the university.

The executive summary is divided into two parts: 1) Highlights Related to UH-Manoa's Strategic Plan and 2) Overall Findings.

**Highlights Related to UH-Mānoa's Strategic Plan**

This summary highlights the survey results as they relate to UH-Mānoa's strategic plan, including the strategic imperatives of research; educational effectiveness; social justice; place; economic development; culture, society and the arts; and technology.

The organization of the highlights was influenced by the WASC core value of examination and improvement. The highlights are divided into two categories: 1) improvements or the positive changes that have occurred at the University over the years and 2) challenges or concerns that may need to be addressed. These highlights are presented for further discussion and interpretation as part of the culture of evidence in support of the assessment of effectiveness of undergraduate educational experiences and of improvement of programs and services.

A major finding in this study is that UH-Mānoa is slowly improving in many ways important to its strategic imperatives. The level of performance reported by students, however, is still relatively low. Mānoa faces the challenge of increasing the level of involvement of undergraduates in areas central to student learning and development as guided by the strategic plan.

Most trend data cited below refer to the period 1996 to 2002. Only highlights are provided with specifics found in the body of this report and in the data tables cited in parentheses. For example, (T2) refers to data Table 2 in this report.

### **Research:**

#### Improvements:

- Student-faculty engagement in undergraduate research projects increased from 3 to 10 percent. (T6)
- There is an upward trend in student involvement in scientific and technological experiences. In 1996 about 30 percent of undergraduates reported performance gains in science and technology compared to 40 percent in 2002. (T19)

#### Challenges:

- The degree of student engagement in research, science and technology is low for a research institution. (T6, T19)
- There has been a gradual decline in student aspiration to earn graduate degrees. (T1)

### **Educational Effectiveness:**

#### Improvements:

- Student-faculty interactions have increased within and outside the classroom. Activities include class discussions about course related matters, term papers and class projects, career plans, and research. Outside of class activities include discussions and socials. (T6)
- In regard to academic challenge:
  - There is an upward trend in gains in intellectual skills such as synthesis, critical thinking, writing and quantitative analysis. (T19)
  - There is an increase in the emphasis the University is placing on the development of academics and analytical skills. (T17)
  - There is a slight upward trend in the amount of writing done by students. Students also report achievements in writing clearly and effectively. Additionally, there is an increase in students who ask for feedback on their papers and in students who revised their papers two or more times before being satisfied with them. (T15, T19, T5)

- The proportion of students making judgments about the quality of information obtained from the library, World Wide Web or other sources has increased from one-fourth in 1999 to one-third in 2002. (T2)
- In regard to active learning, two-thirds of undergraduates have worked on a class assignment, project or presentation with other students. About one-half have contributed to class discussions. (T4)
- There is an increase in course learning skills in determining how different facts and ideas fit together, summarizing major points from class notes or readings, and applying materials learned in a class to other areas. (T4)
- After a number of years of gradual decline and leveling off, there has been a slight upturn from 1999 to 2002 of student involvement in campus committees, student organizations and projects, and student government. (T9)
- In regard to a supportive campus environment, the quality of the relationships between students and other students, faculty, and administration has risen. Students continue to rate their relationships with other students the highest followed by their associations with faculty and administration. Student ratings of administration on their helpfulness, consideration, and flexibility improved the most from 1996 to 2002. (T18)
- There is an upward trend in student accomplishments in all 25 areas of academic and personal development surveyed from 1996 to 2002. The greatest gains in student college experiences relate to self-understanding, independent learning, and developing the ability to get along with different kinds of people. (T19)
- There is a slight decrease in employed students from 1999 to 2002 with a corresponding decrease in students who report that their jobs take some or a lot of time from their school work. (T1)
- Student satisfaction with UH-Mānoa increased slightly from 1996 to 2002. (T16)

#### Challenges:

- The degree of student-faculty engagement may be relatively low given the benefits of such involvement on student retention and learning. (T6)
- In regard to academic challenge:
  - Student time spent on academic tasks outside the classroom, such as studying, writing, reading, laboratory work and rehearsing is minimal. (T1)

- The number of textbooks or assigned books read has declined (T15)
- About 7 in 10 students complete assigned readings for class. (T4)
- The trend continues in grade inflation. (T1)
- Student time spent in the library to read, study, and perform electronic searches has declined through the years. (T2)
- Given the increasing ease of access to massive amounts of data and information, the proportion of students making judgments about the quality of information obtained from the library, World Wide Web or other sources may be low. (T2)
- In terms of active learning, student contributions to class discussions remain low and unchanged from 1996 to 2002. (T4)
- The current level of student involvement in student clubs, organizations, and government is only slightly higher than 1990 levels. (T9)
- With undergraduate employment rates still relatively high, the challenge is to support job opportunities that compliment and reinforce major fields and career interests of students, such as internships, co-operative education and service learning. (T1)
- Student satisfaction with UH-Mānoa increased slightly from 1996 to 2002 but has not exceeded 1993 levels of satisfaction. (T16)

### **Culture, Society and the Arts:**

#### Improvements:

- Undergraduates report performance gains in developing their own values and ethical standards. (T19)
- They also report gains in understanding and enjoying art, music, drama, and literature. (T19)
- They perceive that the University is increasing its emphasis on developing aesthetic, expressive, and creative qualities in student development. (T17)
- The use of campus recreational facilities such as the pool and fitness equipment increased from 19 to 23 percent from 1999 to 2002. (T8)
- Twenty-five percent of students follow a regular schedule of exercise in some sports on campus. (T8)

- They report gains in developing good health habits and physical fitness. (T19)
- In terms of enriching educational experiences, students report increases in serious discussions with students whose:
  - philosophy of life or personal values were very different from theirs, (T11)
  - political opinions were different from theirs, and (T11)
  - religious beliefs were very different from theirs. (T11)

#### Challenges:

- Undergraduates report that the areas of least gain in performance since attending college are in the arts (art, music and drama) and in literature. (T19)
- Student attendance as well as participation in art and music events and activities declined from 1999 to 2002. (T7)
- Only 1 in 10 students attends a cultural or social event in the campus center or other campus locations. (T8)
- Only 1 in 10 students attends a lecture or panel discussion on campus. (T8)
- Only 1 in 10 students plays a team sport such as intramural or intercollegiate sports. (T8)
- Gains in developing good health habits and physical fitness have leveled off at 40 percent. (T19)
- Although student engagement in serious discussions with other students on topics very different from their own beliefs have increased, the amount of discussion is low. (T11)

#### **Social Justice:**

#### Improvements:

- Students rated human diversity top on the list of aspects emphasized by the University. (T17)
- Students report performance gains in developing the ability to get along with different kinds of people. (T19)
- There is an upward trend in student involvement with other students who are different from themselves in interests, socio-economic background, age, ethnicity, and country of origin. (T11)

- Students report performance gains in the awareness of other philosophies, cultures, and ways of life. (T19)
- They also report performance gains in developing their own values and ethical standards. (T19)

#### Challenges:

- The challenge is to continue to build respect for human diversity and gender equity across the campus and curriculum.

#### **Place:**

#### Improvements:

- Student use of campus lounges to relax or study has increased from 1996 to 2002. (T8)
- Student use of the campus center or other campus location for cultural or social events have also slightly increased.. (T8)

#### Challenges:

- Use of facilities for social and cultural activities is low. The challenge is to optimize the use of campus facilities while serving the diverse needs of the campus community. (T8)

#### **Economic development:**

#### Improvements:

- Student-faculty discussions on career plans and ambitions have increased. (T6)
- Students perceive that the University is placing more emphasis on developing vocational and occupational competence. (T17)
- There is an increase in student performance gains in vocational competence. (T19)

#### Challenges:

- Only 1 in 4 students has discussed their career plans with a faculty member. (T6)
- About 60 percent report obtaining a range of career information, which is below 1990 levels. (T19)



## **Technology:**

### Improvements:

- Student use of computers and other information technologies has increased. Nearly all undergraduates have access to computers at work or nearby that they can use for their school work. (T1, T19)
- Student use of computers in all nine areas surveyed from word processing to developing Web pages increased. (T3)

### Challenges:

- The challenge is to continue to assure equal access to technology for all students. (T19)

## **Overall Findings**

### Student Characteristics (T1)

- Steady upward trend in students with college educated parents.
- Steady upward trend of students earning grades of B+ or better.
- Decline in percent of employed students from 1999 to 2002.
- No change in percent of students working on campus; decline in percent working off campus.
- Steady downward trend in student aspiration to earn a graduate degree.

### Student Use of the Library (T2)

- Steady downward trend in student time spent studying in the library.
- Decrease in student time spent in the library reading reserve materials.
- Decrease in the student use of library index or computer data base.
- Increase in judgments made by students about the quality of information obtained from the library and Web.

### Student Use of Computers and Technology (T1, T3)

- Increase in student access to computers for their school work.
- Increase in student use of computers for word processing, tutorials, electronic medium (e-mail, list-serve, chat room, Internet, data retrieval), visual displays, data analysis, and web pages or multimedia presentations.

### Student Engagement in Course Learning Activities (T4)

- Little change in the high percentage of students who took detailed notes in class.
- Little change since 1996 in percentage of students who contribute to class discussions.
- Upward trend in integrating facts and ideas from various sources while working on a paper or project.
- Upward trend in summarizing major points from class notes or readings.
- Upward trend in explaining materials from a course to someone else.

### Student Engagement in Writing (T5, T15, T19)

- Upward trend since 1993 in students requesting feedback on their written work.
- Upward trend since 1996 in students revising their papers two or more times.
- Upward trend in students who thought about grammar, sentence construction, paragraphs, word choice and sequence of ideas or points while writing.
- Steady downward trend in using a dictionary or thesaurus to determine proper meaning of words.
- Upward trend in writing clearly and effectively.

### Student Interaction with Faculty (T6)

- Upward trend from 1996 to 2002 in faculty-student interaction.
- Steady upward trend from 1996 to 2002 in students talking with faculty about course related matters.

- Upward trend from 1996 to 2002 in students discussing their career plans with faculty.
- Upward trend from 1996 to 2002 in students working with faculty on a research project.
- Increase from 1999 to 2002 in students interactions with other students and with one or more faculty members outside of class.
- Upward trend from 1996 to 2002 in students socializing with faculty members outside of class.

#### Student Engagement in Art, Music and Theater (T7)

- No change from 1999 to 2002 in students talking about both art and music.
- Slight decrease from 1999 to 2002 in students attending art events.
- Slight decrease from 1999 to 2002 in students attending music events.
- No change from 1999 to 2002 in students reading or discussing the opinions of art, music or drama critics.
- No change from 1999 to 2002 in student active involvement in music.
- Decrease from 1999 to 2002 in student active participation in art and theater activities.

#### Student Use of Campus Facilities (T8)

- Slight downward trend from 1990 to 1996 then an upward trend from 1996 to 2002 in use by students of campus lounges to relax or study.
- Little change in students following a regular schedule of exercise or of sports on campus.

#### Student Involvement in Clubs and Organizations (T9)

- Steady decline in student involvement in clubs and organizations from 1990 to 1999 followed by a sharp increase in 2002 surpassing slightly 1990 levels.
- Increase in student leadership in clubs and organizations from 1999 to 2002.

#### Personal Experiences of Students (T10)

- Increase in students asking a friend to help with personal problems.
- Upward trend in student test taking to measure abilities, interests and attitudes.
- Upward trend in students asking for opinions about themselves from their friends.

#### Student Acquaintances (T11)

- Steady upward trend since 1993 of student engagement with other students who were different from themselves in interests, socio-economic family background, age, ethnicity, and country of origin.
- Steady upward trend since 1993 of students who have had serious discussions with other students who differed from themselves in philosophy of life or personal values, political opinions, religious beliefs, ethnicity, and country of origin.

#### Student Engagement in Scientific and Quantitative Experience (T12)

- Little change from 1990 to 1996 then a steady upward trend from 1996 to 2002 in student engagement in the following scientific and quantitative activities: memorized formulas, definitions, technical terms and concepts; used mathematical terms to express a set of

relationships; read articles about scientific theories in addition to those assigned for a class; completed an experiment or project using scientific methods; practiced to improve their skill in using a piece of laboratory equipment; and explained to another person the scientific basis for concerns about scientific or environmental issues.

#### Student Topics of Conversation (T13)

- Upward trend in the two most popular topics of conversations for students: current events in the news and different life styles, customs and religions.
- Upward trend in other topics, such as social issues, computers, and the economy.

#### Information in Conversation (T14)

- Upward trend in the ways students used information in their conversation, such as more often referred to knowledge they acquired in their readings or classes or more often explored different ways of thinking about the topic.

#### Student Engagement in Reading and Writing (T15)

- Gradual downward trend in reading textbooks or assigned books.
- Gradual downward trend in reading non-assigned books.
- Slight upward trend in writing essay examinations for courses.
- Slight upward trend in writing term papers or other reports.

#### Student Satisfaction (T16)

- Student satisfaction with UH-Mānoa increased slightly from 1996 to 2002 but did not exceed 1993 levels.

#### College Environment (T17)

- Upward trend on the emphasis UHM places on developing diversity, information literacy, academic qualities, analytical qualities, course relevance, vocational competence and aesthetic qualities.
- Greatest emphasis placed on diversity followed by information literacy.

#### College Relationships (T18)

- Little change in trend of positive relationships of students with other students, faculty and administration from 1990 to 1996 followed by an upward trend from 1996 to 2002.
- The greatest improvement in relationships occurred between students and administrative personnel in regard to helpfulness, consideration and flexibility.

#### Student Gain in Performance (T19)

- When students were asked about the amount of gain they perceived in their performance in 25 different academic and social/personal areas since starting college, the areas most frequently selected were:
  - understanding yourself,
  - learning on your own,

- and developing the ability to get along with different kinds of people.

The areas of least gain were:

- literature
  - and the arts.
- The greatest gains from 1990 to 2002 occurred in computers and other information technologies.
  - Gradual upward trends occurred between 1996 and 2002 in the following:
    - Gains in general education, literature, arts and social sciences.
      - General education
      - Awareness of other cultures
      - Knowledge of world and other people
      - Literature
      - Arts
    - Gains in personal development and social competence
      - Understanding self
      - Understanding others
      - Ethics and values
      - Team member
      - Health and physical fitness
    - Gains in science and technology
      - Understanding science
      - Scientific application
      - Scientific development
    - Gains in intellectual skills
      - Independent learning
      - Synthesis
      - Critical thinking
      - Writing
      - Quantitative analysis
    - Gains in computers and other information technologies
    - Gains in vocational competence
      - Further education
      - Vocational training
  - Slight upward trends occurred between 1996 and 2002, however 2002 levels did not meet or exceed 1990 levels in:
    - History
    - Career information

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	Marital Status	
	College classification	
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	Residence during school year	
	Who live with during school year	
	Have access to computer	
	Most grades at UHM up to now	
	Major field of study	
	Parents graduated from college	
	Expect to enroll in advanced degree	
	Credit hours taking this term	
	Hours spent on out of class academic work	
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	Hours working off campus for pay	
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# **1. Introduction**

## **1. Introduction**

This report highlights the experiences of classified undergraduate students at the University of Hawai'i at Mānoa for the years 1990, 1993, 1996, 1999, and 2002.

The purpose of this report is to provide trend data which describe the direction of change of the educational background and experiences of UHM students. Additionally, the results can be used along with multiple measures from various sources to inform planning and decision-making, to facilitate improvement of programs and services, to assist in the accreditation process, and to enhance the quality of educational experiences for students at UH-Mānoa.

### **Survey Instrument**

Students were surveyed using the College Student Experiences Questionnaire (CSEQ), a nationally known assessment instrument that measures student involvement in the college environment, satisfaction, and performance gains in a variety of educational and personal areas. The CSEQ provides information on student characteristics; college activities, such as the extent of reading, writing, and other learning activities; use of facilities, such as the library and campus facilities; satisfaction with college; student interaction with other students, faculty and administrators; and student gain in performance. The CSEQ is an eight-page instrument available as a paper-and-pencil or as a web-based survey. Twenty institutionally developed survey questions can be added to the CSEQ.

The CSEQ instrument was revised and updated in 1998 by authors C. Robert Pace and George D. Kuh. Copies of the 1990 and 1998 editions of the CSEQ are found in the appendix. Also available in the appendix is a list of research institutions that composed the national norms for the CSEQ.

### **Methodology**

The subjects in this cross-sectional study were five independent groups of classified undergraduate UHM students who were administered the CSEQ in the spring of 1990, 1993, 1996, 1999, and 2002. All surveys were paper-based except for the 2002 survey which was web-based. The 1990 sample of 1,368 respondents was selected from a cross-section of classes in nine colleges at UHM. The 1993, 1996, and 1999 sample of 1,124, 1,022, 944, and 1,253 respondents were selected through a random sample process stratified proportionately by class level. The return rate was 45 percent in 1993, 43 percent in 1996, 37 percent in 1999, and 28 percent in 2002. The sample error was about 3 percent for the random sample sizes.

All five groups were generally representative of the UH-Mānoa classified undergraduate population in class level and gender, although in all cohort groups females were slightly over represented. This should be kept in mind when utilizing the survey results. The 1990, 1993, and 1996 groups were also generally representative of their population in ethnicity. Since the ethnicity survey item in the 1999 and 2002 surveys was revised by the developers to allow multiple

responses to the ethnicity item, the degree of representativeness could not be determined from the item, but a rough estimate indicates that the 1999 and 2002 random sample was also representative of the student body in ethnicity. The 2002 cohort was also representative in age and statistically weighted to be representative by class.

The survey data were scanned and the analysis conducted by using the Statistical Package for the Social Sciences (SPSS).

## **Results**

Highlights of the results are presented in the next section in narrative, chart and table form. The highlights are followed by the data tables in parts 3-10 of this report.

For those interested in comparing the results with national norms, those statistics are included along with the results of this study in the data tables in parts 3-10 of this report. It should be noted that UH-Mānoa differs from the norm group in several major ways. UH-Mānoa is using the CSEQ to measure the undergraduate experience; most institutions in the norm group are using the CSEQ to measure the freshman experience. UH-Mānoa is a commuter campus and most norm group institutions are residential campuses. Also, the majority of UH-Mānoa students are employed while the majority of norm group students are not employed while attending school. As a result any comparisons made should be made with care. A list of research institutions included in the norm group is available in the appendix.

This report is also available on the Web at <http://www.hawaii.edu/osa> by clicking on “Student Assessment Reports.”

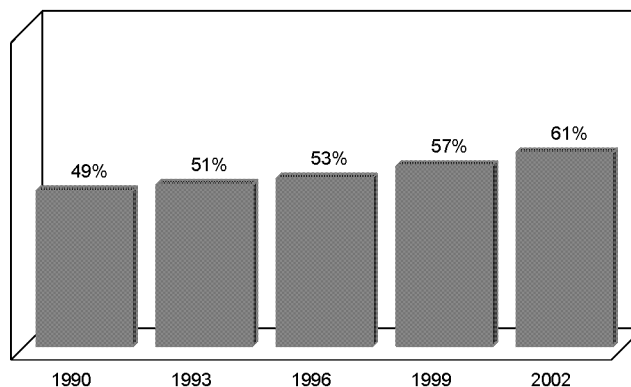
## **2. Highlights of College Student Experiences**

## 2. Highlights of Undergraduate Experiences

### Student Characteristics (Table 1)

- The majority of UH-Mānoa classified undergraduates are single female Asian/Pacific Islanders under the age of 24. They are first-time college students who commute to campus and reside at home with parents or relatives. The majority of students rely on their parents to meet college expenses
- The majority of students at UH-Mānoa come from homes where one or both parents are college graduates. The percentage has grown from 49 percent in 1990 to a high of 61 percent in 2002.

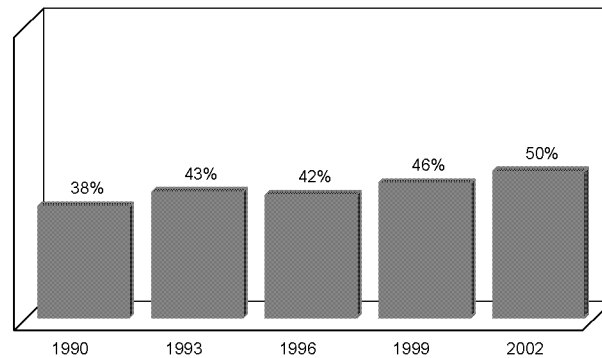
One or Both Parents Graduated From College  
from 1990 to 2002



### Time on Task and Grades (Table 1)

- Most students enroll in 12-14 credit hours of course work per term. The majority spend 15 or less hours a week on out of class academic activities, including studying, writing, reading, lab work, rehearsing, etc.
- Despite minimum amounts of time dedicated to their college courses, 50 percent receive grades of B+ or better; 75 percent B or better.
- There is an upward trend in students earning grades of B+ or better from 38 percent in 1990 to 50 percent in 2002.

Students Earning Grades B+ and Higher  
from 1990 to 2002



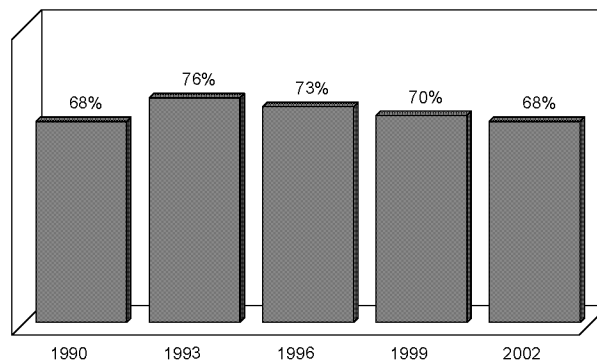
### Time Working (Table 1)

- Although the majority of undergraduates work, fewer students work today than three years ago. In 1999 78 percent of undergraduates were employed while attending UH-Mānoa compared to 70 percent in 2002.
- Of employed students in 2002, 70 percent report that their job takes some or a lot of time from their school work.

### Plans to Attend Graduate School (Table 1)

- The majority of UH-Mānoa undergraduates plan to earn graduate degrees. Their aspiration to continue their education beyond their baccalaureate degree, however, has declined steadily from 76 percent in 1993 to 68 percent in 2002 reverting back to 1990 levels.

Student Aspirations for Graduate Degree  
1990 to 2002

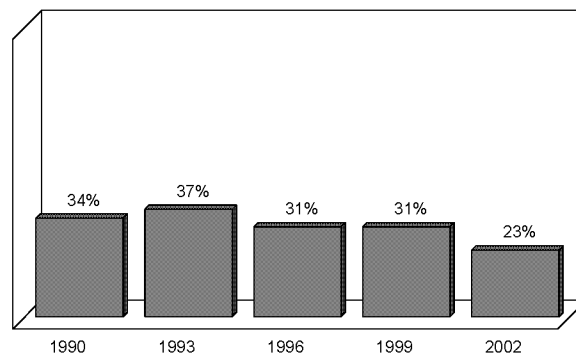


### Library Activities (Table 2)

- Students today spend less time in the library as a place to read, study or browse materials that

they brought with them into the library. They also spend less time physically in the library reading assigned course materials (e.g., reserve readings other than textbooks). Only 23 percent use the library as a place to study compared to 34 percent in 1990. It should be noted that steps were taken recently to extend library hours, which may increase this percent during future administration of this survey.

**Student Use of Library as a Place to Study**  
1990 to 2002

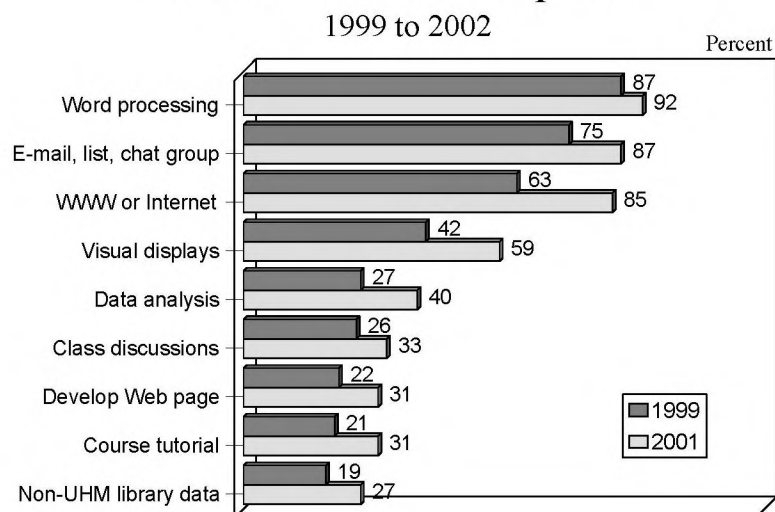


- The number of students who used a library index or database (computer, card catalog, etc.) to find material on some topic also declined from 50 percent in 1999 to 41 percent in 2002.
- More students, however, are making judgments about the quality of information obtained from the library, World Wide Web or other sources. In 1999 about one-fourth made judgments compared to about one-third in 2002.

### **Computer and Information Technology Activities (Table 1 and 3)**

- Nearly all undergraduates have access to computers at work or nearby that they can use for their school work, up from 95 percent in 1999 to 98 percent in 2002.
- From 1999 to 2002 student use of computers increased in all areas surveyed: word processing to prepare papers, e-mail to communicate with faculty or students, tutorials to learn course material, electronic medium (e-mail, list-serve, chat group) in class discussions, Internet for course information searches, data retrieval from non-UHM libraries, production of visual displays of information (charts, graphs, spreadsheets), data analysis, and development of Web pages or multimedia presentations.
- Student use of the World Wide Web and the Internet increased from 65 percent to 85 percent in three years; student use of charts, graphs and spreadsheets increased from 42 percent to 59 percent in the same period.

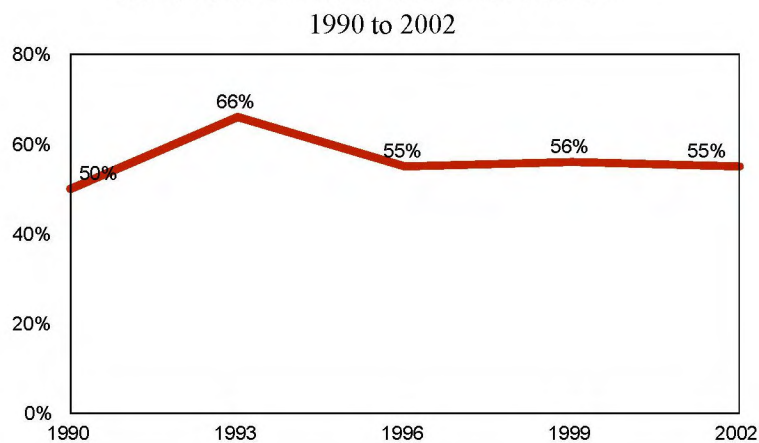
## Student Use of Computers



### Course Learning Activities (Table 4)

- About 7 in 10 students complete their assigned readings for class.
- Although contributions to class discussions increased from 50 percent in 1990 to 66 percent in 1993, it decreased to 55 percent in 1996 with little change from 1996 to 2002.

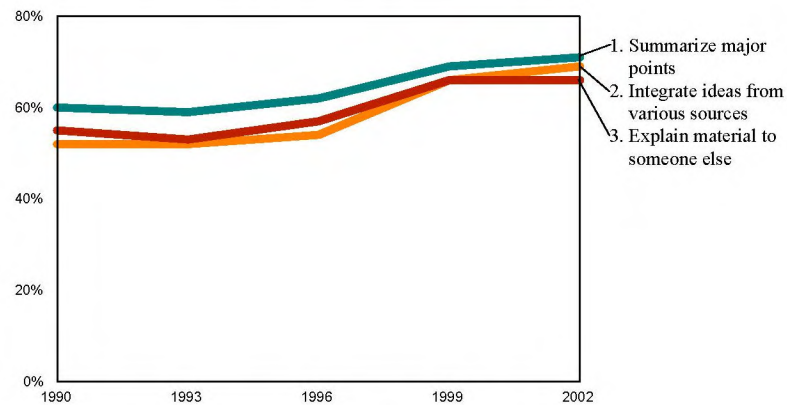
### Contribution to Class Discussion



- However, the likelihood of students summarizing major points and information from their class notes or readings, explaining the material from a course to someone else, and working on a paper or project where they had to integrate ideas from various sources increased from 1990 to 2002.



## Increases in Course Learning

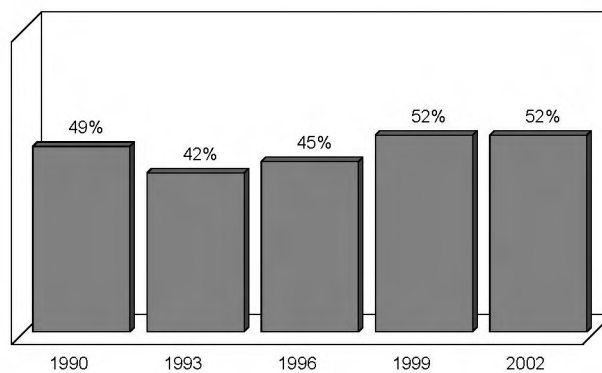


	1990	1993	1996	1999	2002
Summarize major points	55	53	57	66	66
Integrate ideas from various sources	52	52	54	66	69
Explain material to someone else	60	59	62	69	71

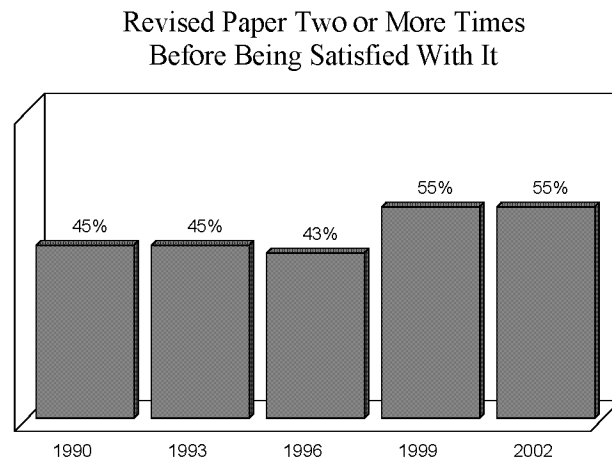
## Experiences in Writing (Table 5)

- More students today than in 1990 asked others to read something they wrote to see if it was clear to them. This request for feedback from others declined from 49 to 42 percent from 1990 to 1993 before increasing to 52 percent in 1999 and 2002.

### Asked Others For Feedback on Their Writing

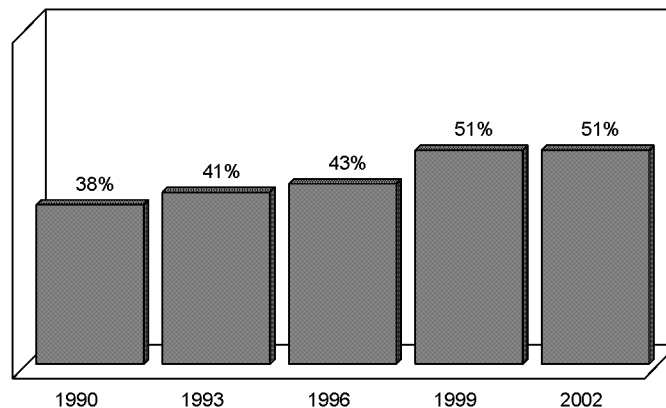


- After little change from 1990 to 1996, an upward trend occurred of students who revised a paper or composition two or more times before they were satisfied with it.



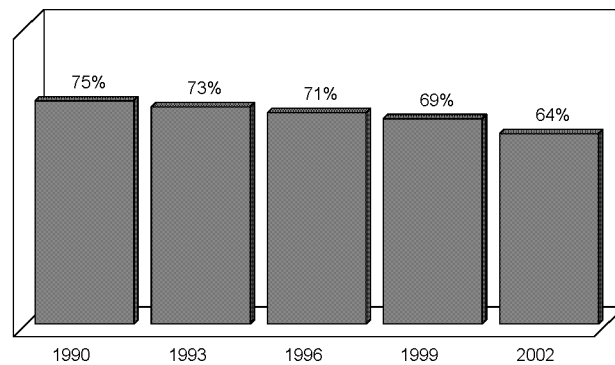
- There is a steady upward trend from 1990 to 1999 and 2002 in students who thought about grammar, sentence construction, paragraphs, word choice and sequence of ideas or points as they were writing.

Thought About Grammar, Sentence Structure, Paragraphs,  
Word Choice and Sequence of Ideas While Writing



- However, the amount of time undergraduates spent using a dictionary or thesaurus to look up proper meaning of words gradually declined from 1990 to 2002.

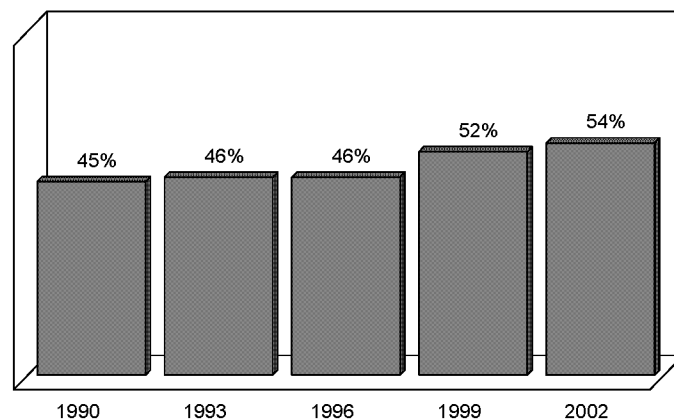
Used a Dictionary or Thesaurus to Look Up  
the Proper Meaning of Words



### Student Interaction with Faculty (Table 6)

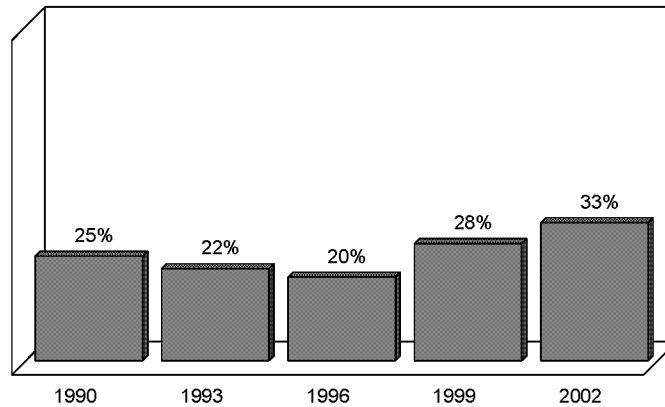
- After relatively little change or in some cases a decline of student-faculty involvement from 1990 to 1996, there has been an upward trend in student-faculty engagement from 1996 to 2002.
- Student involvement in talking with faculty about course related matters (grades, make-up work, assignment, etc.) remained stable from 1990 to 1996 then increased from 45 percent to 54 percent from 1996 to 2002.

Talked with Faculty About Course Related Matters



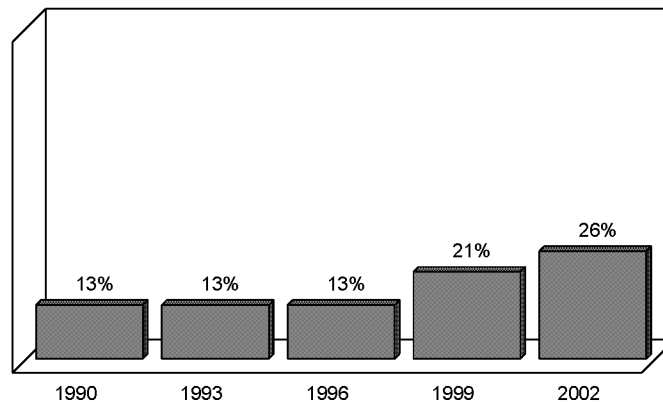
- Student-faculty discussions on ideas for term papers or other class projects declined from 1990 to 1996 then increased from 20 percent to 33 percent from 1996 to 2002.

Discussed with Faculty Ideas for a Term Paper  
or Other Project



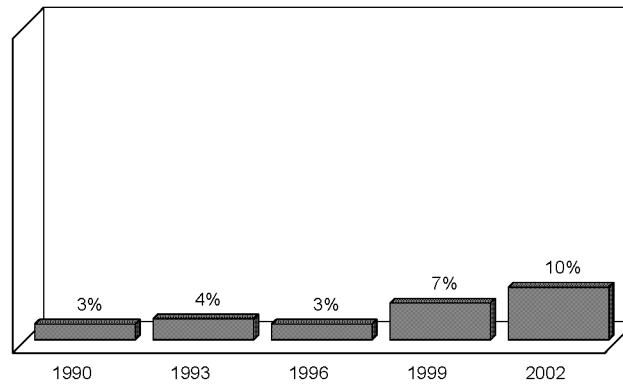
- Student-faculty discussions on career plans and ambitions remained stable from 1990 to 1996 then rose from 13 to 26 percent from 1996 to 2002.

Discussed with Faculty Career Plans and Ambitions



- Faculty are a motivational force in student academic efforts. About 5 in 10 students report working harder as a result of feedback from an instructor, and 4 in 10 report working harder than they thought they could to meet an instructor's expectations and standards.
- Student-faculty engagement in research projects remained stable at about 3 percent from 1990 to 1996 then rose to 10 percent from 1996 to 2002.

### Worked with Faculty on Research Project



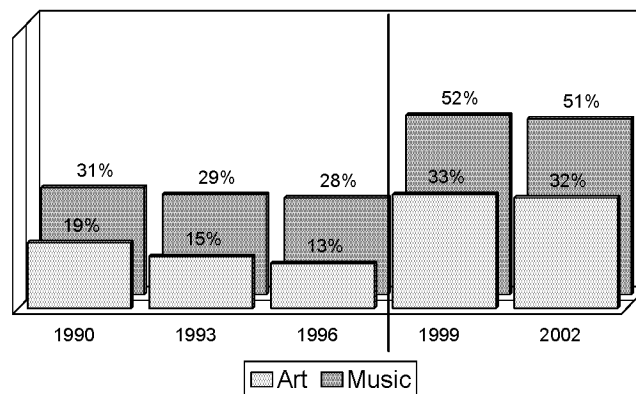
- In regard to outside of class activities, 20 percent of undergraduates in 2002 participated in a discussion with other students and with one or more faculty members compared with 13 percent in 1999.
- Student-faculty socializing outside of class declined slightly from 5 to 3 percent from 1990 to 1996 then rose to 11 percent from 1996 to 2002.

### Art, Music and Theater Experiences (Table 7)

All items in the survey under this sections were modified in 1999 to reflect learning experiences off campus. Therefore, data from 1990 to 1996 have to be interpreted differently from 1999 and 2002 data.

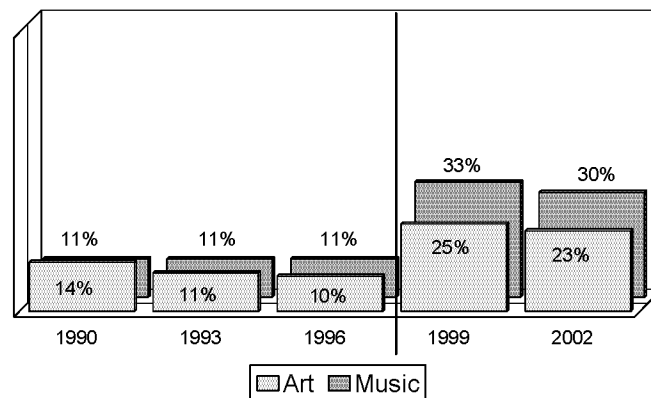
- There was a downward trend of students talking about both art and music from 1990 to 1996. From 1999 to 2002 the percentage remained stable of students talking about art (32 percent) and about music (51 percent). More students talked about music than about art with other students, friends or family members.

### Talked About Art and Music



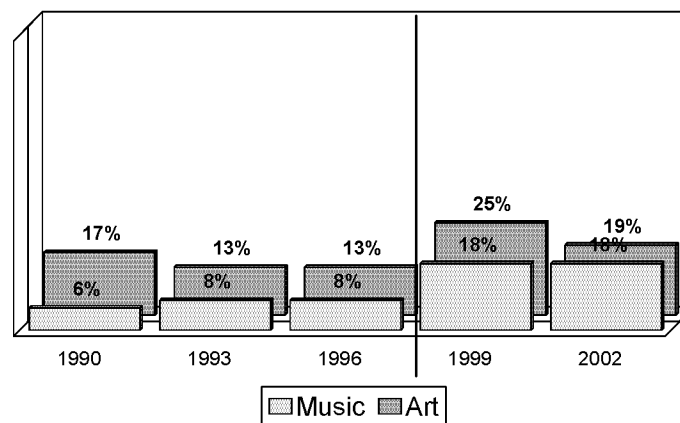
- There was a downward trend of students attending art exhibits or a play, dance or other theater performance on campus from 1990 to 1999. A decline was also observed from 25 to 23 percent from 1999 to 2002 in attendance at these events on and off campus. Attendance at music concerts and other music events on campus remained stable at 11 percent from 1990 to 1996. As with art, a decline was observed in attendance at music activities on and off campus from 33 percent to 30 percent from 1999 to 2002.
- Student attendance at music events remain slightly higher than attendance at art events.

Attended an Art and Music Event



- Student direct involvement in music activities (orchestra, chorus, dance, etc.) on campus remained stable at 18 percent from 1999 to 2002. Student direct involvement in art (painting, pottery, weaving, drawing, etc.) or theater event, or worked on some theatrical production (acted, danced, worked on scenery, etc.) on or off the campus decreased from 25 percent in 1999 to 19 percent in 2002.
- Student direct involvement in art activities remain higher than involvement in music activities.

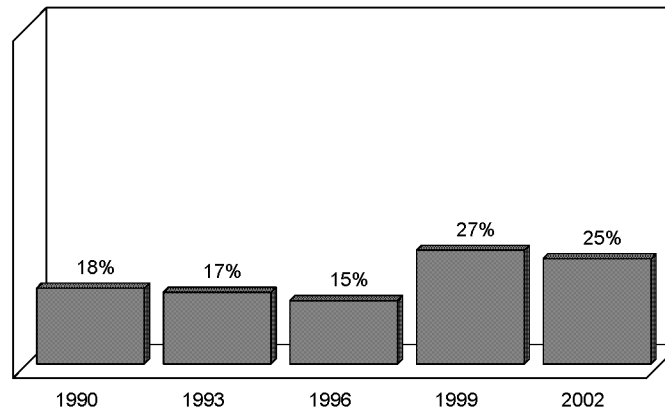
Participated in Music and Art Activities



### Campus Facilities (Table 8)

- After a gradual decline from 1990 to 1996, there has been an increase to 25 percent in 2002 in student use of campus lounges to relax or study by themselves.

Used Campus Lounge to Relax or Study

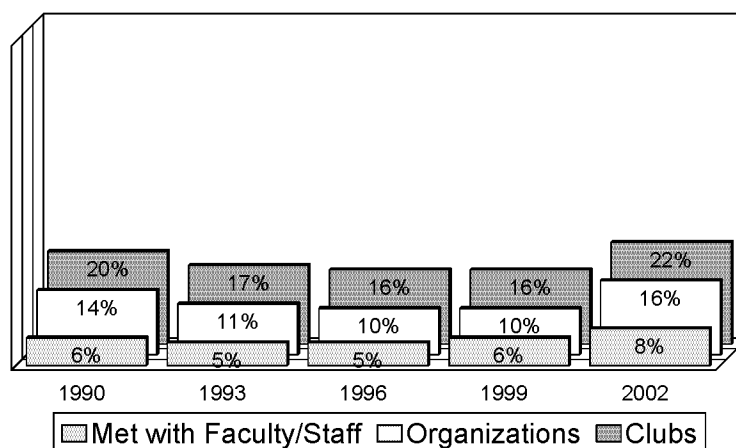


- Twenty-five percent followed a regular schedule of exercise in some sports on campus.
- About 4 in 10 met with other students at some campus location for a discussion.
- About 2 in 10 used campus recreational facilities (pool, fitness equipment, etc.).
- About 1 in 10 went to a lecture or panel discussion.
- About 1 in 10 attended a cultural or social event in the campus center or other campus location.
- About 1 in 10 played a team sport.

### Clubs and Organizations (Table 9)

- There has been a steady decline in student involvement in clubs and organizations from 1990 to 1999 followed by a sharp increase in 2002 surpassing 1990 levels by 2 percent.

## Involvement in Clubs and Organizations



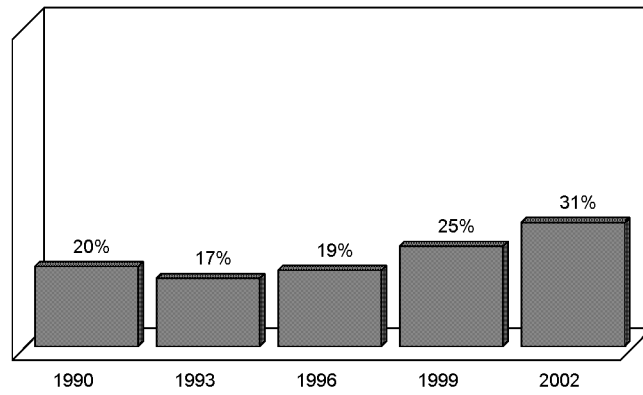
- The percentage of students who met with a faculty member or staff advisor to discuss the activities of a group or organization remained stable at 5-6 percent from 1990 to 1999 and rose to 8 percent in 2002.
- The percentage of students who worked on a campus committee, student organization or project declined from 14 to 10 percent from 1990 to 1999 and rose to 16 percent in 2002.
- The percentage of students who attended a meeting of a campus club, organization or student government group declined from 20 to 16 percent from 1990 to 1999 and increased from 16 to 22 percent from 1999 to 2002.
- An equal percent of students were engaged in on-campus (16 percent) as well as off-campus (16 percent) committee, student organization or project activities. On-campus student involvement in these activities increased from 10 to 16 percent from 1999 to 2002 after a steady decline since 1990.
- As far as student leadership in 2002, 19 percent of undergraduates managed or provided leadership for a club or organization on- or off-campus, up from 15 percent in 1999.

### Personal Experiences (Table 10)

- In regard to personal problems, about 6 in 10 students turned to a friend for help while 1 in 10 talked with a faculty member, counselor or other staff member about personal concerns.
- In regard to personal growth, about 3 in 10 students took tests to measure their abilities, interest or attitudes. There is an upward trend in students who have taken a test to measure their abilities, interests or attitudes. About 3 in 10 also read about personal growth, self-improvement or social development.



### Taken a Test to Measure Abilities, Interests or Attitudes



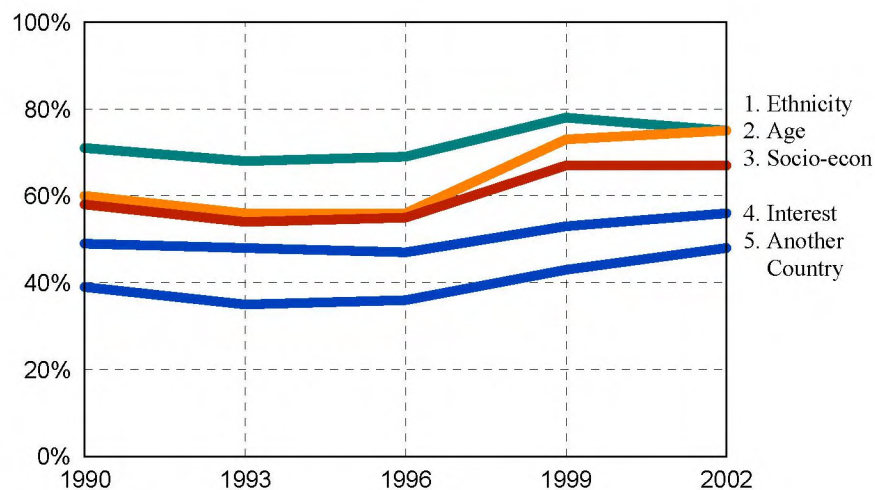
- There is an upward trend of students asking for opinions about themselves from their friends from 26 percent in 1990 to 31 percent in 2002.

## Student Acquaintances (Table 11)

- Students today compared with 1990 more frequently become acquainted with students different from themselves. The chart below shows a gradual downward trend from 1990 to 1996 then an upward trend from 1996 to 2002 in students who have become acquainted with students of different:

- 1. ethnic background,
- 2. age,
- 3. socio-economic family background,
- 4. interest, and
- 5. country of origin.

Increases in Student Involvement  
with Other Students of a Different Background



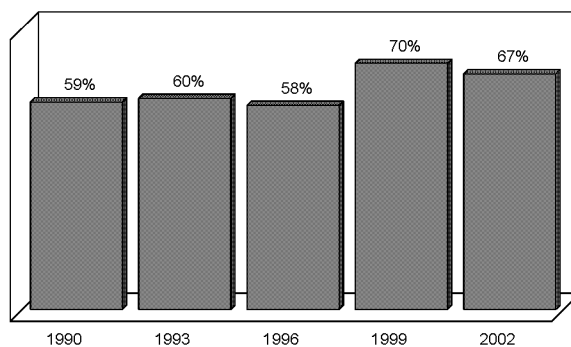
Percent Quite a Bit and Very Much

	1990	1993	1996	1999	2002
Interests	49	48	47	53	56
Socio-econ	58	54	55	67	67
Age	60	56	56	73	75
Ethnicity	71	68	69	78	75
Another country	39	35	36	43	48

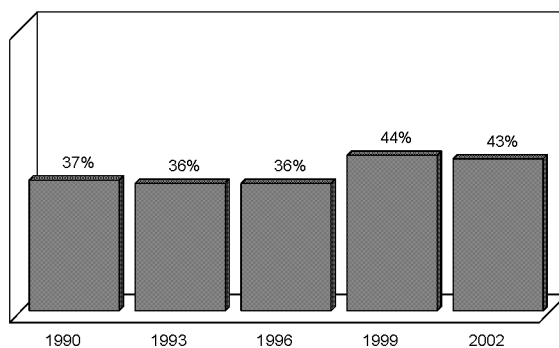
## Scientific and Quantitative Experience (Table 12)

- Little change from 1990 to 1996 then an upward trend from 1996 to 2002 in student engagement in certain scientific and quantitative activities. Student today more often or very often:
  - memorized formulas, definitions, technical terms and concepts,
  - used mathematical terms to express a set of relationships,
  - read articles about scientific theories in addition to those assigned for a class,
  - completed an experiment or project using scientific methods,
  - practiced to improve their skill in using a piece of laboratory equipment, and
  - explained to another person the scientific basis for concerns about scientific or environmental issues.

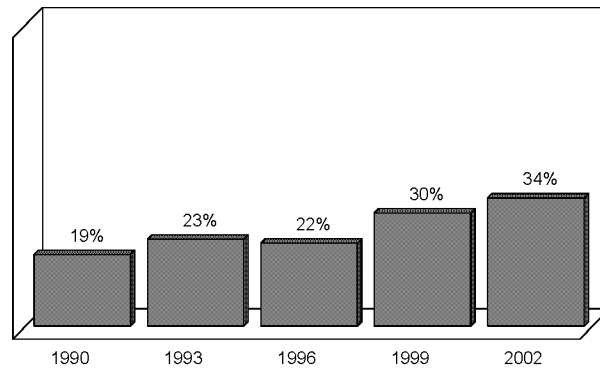
Memorized Formulas, Definitions, Technical Terms and Concepts



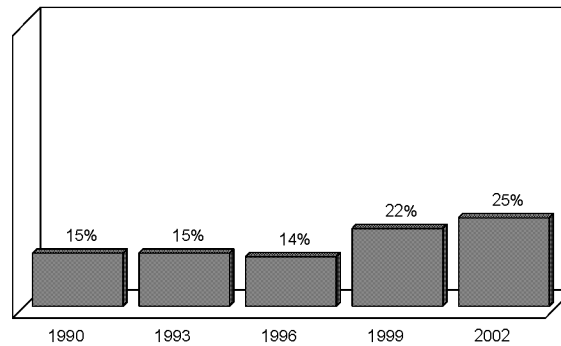
Used Mathematical Terms to Express a Set of Relationships



### Completed an Experiment or Project Using Scientific Methods



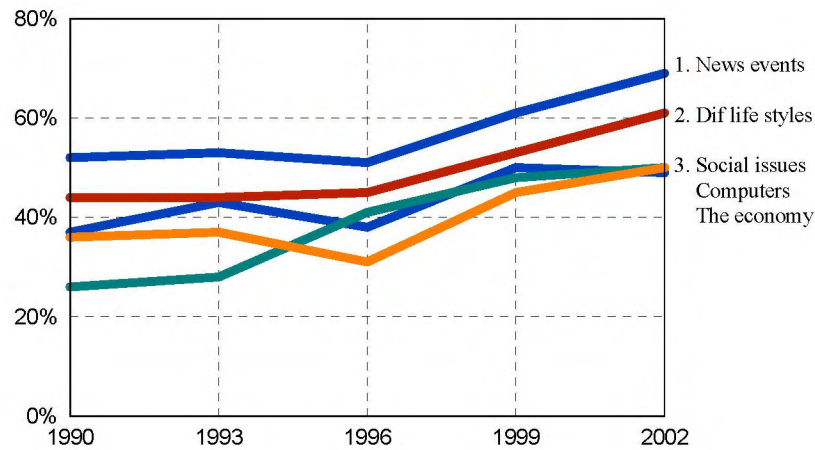
### Explained to Another Person the Scientific Basis for Concerns about Scientific or Environmental Issues.



### Topics of Conversation (Table 13)

- The top topic of conversation for students since 1990 continues to be current events in the news growing in popularity from 52 percent in 1990 to 69 percent in 2002. The second most popular topic is student conversations is about different life styles, customs and religions. Tied for third place topics are social issues, computers and the economy.

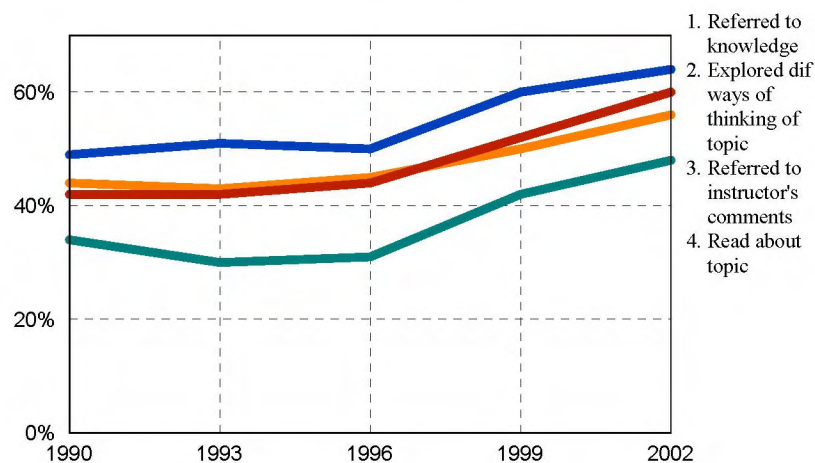
### Topics of Conversation of Interest to Students



### Information in Conversation (Table 14)

- There is generally an upward trend from 1990 to 2002 in the ways students used information in their conversations. They often or very often:
  - referred to knowledge they acquired in their reading or class,
  - explored different ways of thinking about the topic,
  - referred to something one of their instructors said about the topic, and
  - subsequently read something that was related to the topic.

### Information in Conversations



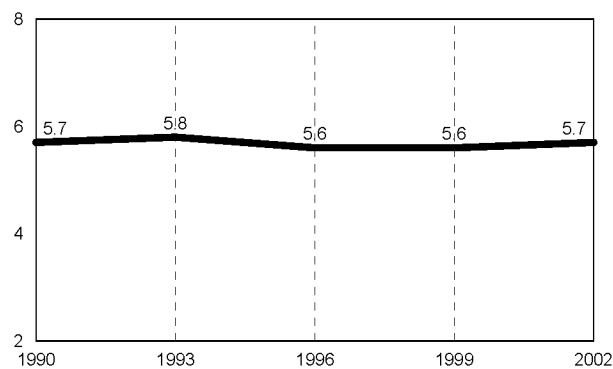
### Reading and Writing (Table 15)

- UHM undergraduates report a gradual downward trend in reading textbooks and assigned books, and non-assigned books from 1990 to 2002.
- In writing, they report a slightly upward trend in writing essay exams, term papers or written reports from 1990 to 2002.

### Satisfaction with College (Table 16)

- Student overall satisfaction with UHM increased slightly from 1996 to 2002 but did not exceed 1993 levels as measured by a satisfaction index that combines several indicators (liking UHM and attending UHM if one could start over again at UHM).

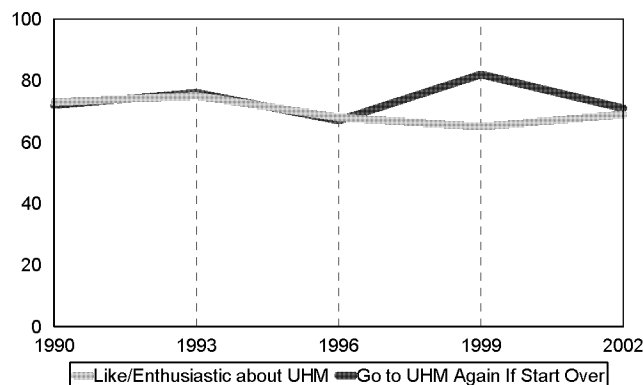
Student Satisfaction Index



- From 1990 to 2002, the percentage of students who liked or were enthusiastic about college resembled the percentage of students who would attend UHM if they could start over again except for 1999 when student opinions diverged sharply. In 1999 although student enthusiasms for UHM decreased their willingness to attend UHM if they could start over again increased.

Student Satisfaction with UHM

1990-2002



## College Environment (Table 17)

- Students perceive UHM as emphasizing the development of human diversity (5.3) and the development of information literacy skills (5) on a scale of 1 = weak emphasis and 7 = strong. The next areas of emphasis were the development of academic and analytical qualities followed by course relevance, vocational, and aesthetic qualities.

### Emphasis on the College Environment

	1990	1993	1996	1999	2002
Diversity				5	5.3
Info Literacy				4.9	5
Academic	4.8	4.8	4.6	4.8	4.9
Analytical	4.7	4.8	4.7	4.7	4.9
Course Relevance	4.4	4.5	4.3	4.3	4.5
Vocational	4.5	4.4	4.2	4.3	4.5
Aesthetic	4.3	4.4	4.2	4.3	4.5

(1 = weak emphasis; 7 = strong)

- There was an upward trend in all areas, especially from 1996. The largest increases from 1999 to 2002 occurred in the areas of developing diversity (6 percent) and in developing course relevance (5 percent), vocational competence (5 percent), and aesthetic qualities (5 percent).

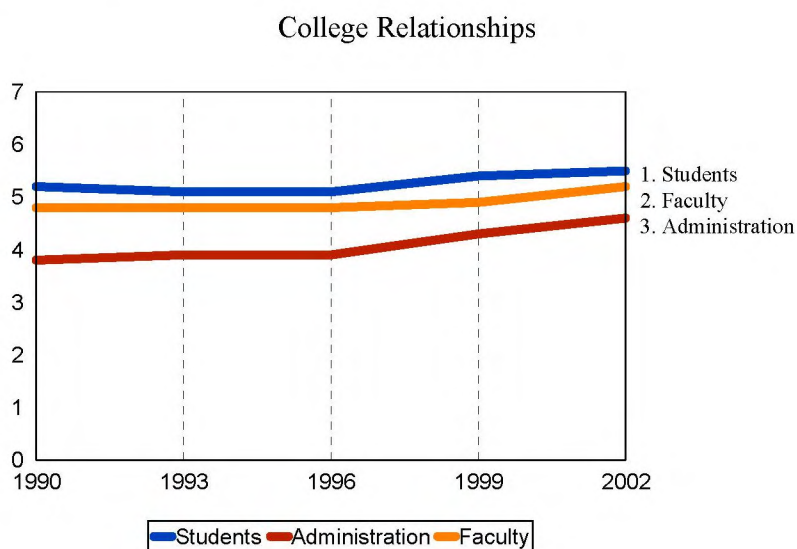
### Improvement in the College Environment

	1999	2002	% Gain
Diversity	5	5.3	6%
Info Literacy	4.9	5	3%
Academic	4.8	4.9	2%
Analytical	4.7	4.9	4%
Aesthetic	4.3	4.5	5%
Voc	4.3	4.5	5%
Course Relevance	4.3	4.5	5%

(1 = weak emphasis; 7 = strong)

### College Relationships (Table 18)

- Student relationships with other students, faculty and administrators remained unchanged from 1990 to 1996 followed by an upward trend from 1996 to 2002 in terms of friendliness, helpfulness, and approachableness.
- When rating their relationships with other students, faculty and administration on supportiveness, consideration, and helpfulness, students rated their relationships with other students the highest followed by their relationships with faculty members and administrative personnel and offices.
- However, student ratings of administrative personnel and offices experienced an increase from 3.8 in 1990 to 4.6 in 2002, a 21 percent increase in student ratings toward administrative helpfulness, consideration, and flexibility.



### Estimate of Gain (Table 19)

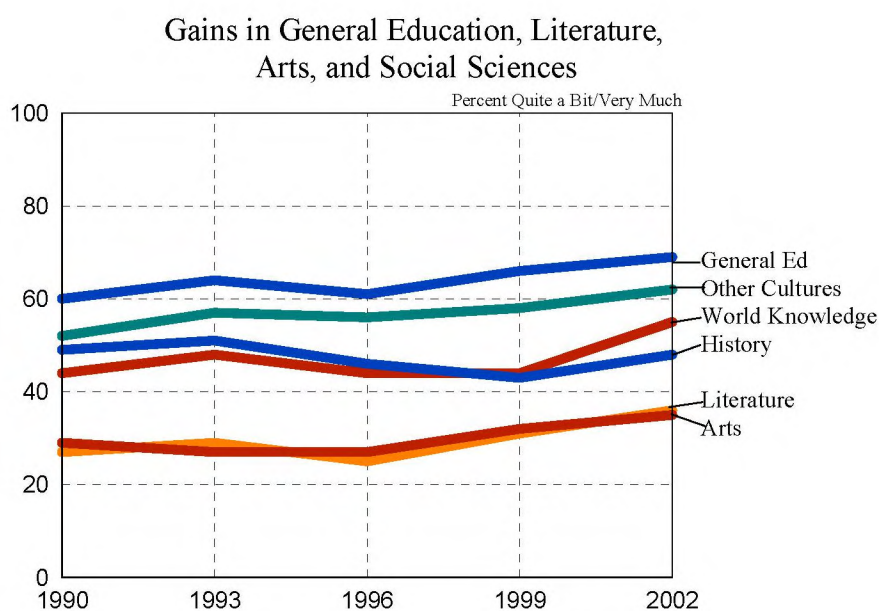
- Students were asked about the amount of progress or gain (quite a bit and very much) they have made since starting college in 25 different academic and social/personal areas, such as writing, history, ethics and science. The greatest gains noted by students in 2002 are in understanding yourself (78 percent), learning on your own (76 percent), and developing the ability to get along with different kinds of people (75 percent). The lowest gains are in the arts (35 percent) and in literature (36 percent).
- The sharpest upward trends from 1990 to 2002 occurred in the use of computers and other information technologies from 46 percent to 69 percent.
- From 1999 to 2002 students reported gains in performance in learning to adapt to change (from 65 to 71 percent) and in presenting ideas and information effectively when speaking to others (from 56 to 59 percent).



## Gains in General Education, Literature, Arts, and Social Sciences (Table 19)

- ★ Gaining a broad general education about different fields of knowledge.
- ★ Awareness of other philosophies, cultures, and ways of life.
- ★ Gaining knowledge about other parts of the world and other people.
- ★ Seeing the importance of history for understanding the present as well as the past.
- ★ Broadening your acquaintance and enjoyment of literature.
- ★ Developing an understanding and enjoyment of art, music, and drama.

The trend is upward from 1990 to 2002 in gain in performance in general education; an awareness of other cultures, philosophies and ways of life; gaining knowledge about other parts of the world and other people; broadening acquaintance and enjoyment of literature; and development an understanding of art, music and drama. The trend in history is uneven with gains declining from 1993 to 1999 with an upturn in 2002 but not quite to 1990 levels..



Percent Quite a Bit and Very Much

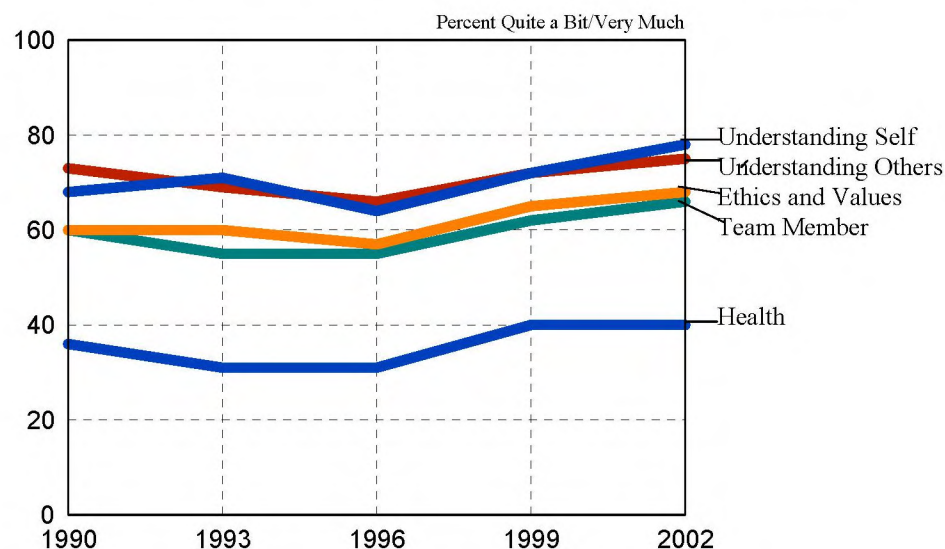
	1990	1993	1996	1999	2002
General Education	60	64	61	66	69
Other Cultures	52	57	56	58	62
World Knowledge	44	48	44	44	55
History	49	51	46	43	48
Literature	27	29	25	31	36
Arts	29	27	27	32	35

### Gains in Personal Development and Social Competence (Table 19)

- ★ Understanding yourself - your abilities, interests, and personality.
- ★ Developing the ability to get along with different kinds of people.
- ★ Developing your own values and ethical standards.
- ★ Developing the ability to function as a team member.
- ★ Developing good health habits and physical fitness.

The trend is upward from 1990 to 2002 in gain in performance in understanding ones self; understanding others; developing values and ethical standards; developing the ability to function as a team member; and developing good health habits and physical fitness. Performance gains in health development leveled off from 1999 to 2002.

Gains in Personal Development and Social Competence



Percent Quite a Bit and Very Much

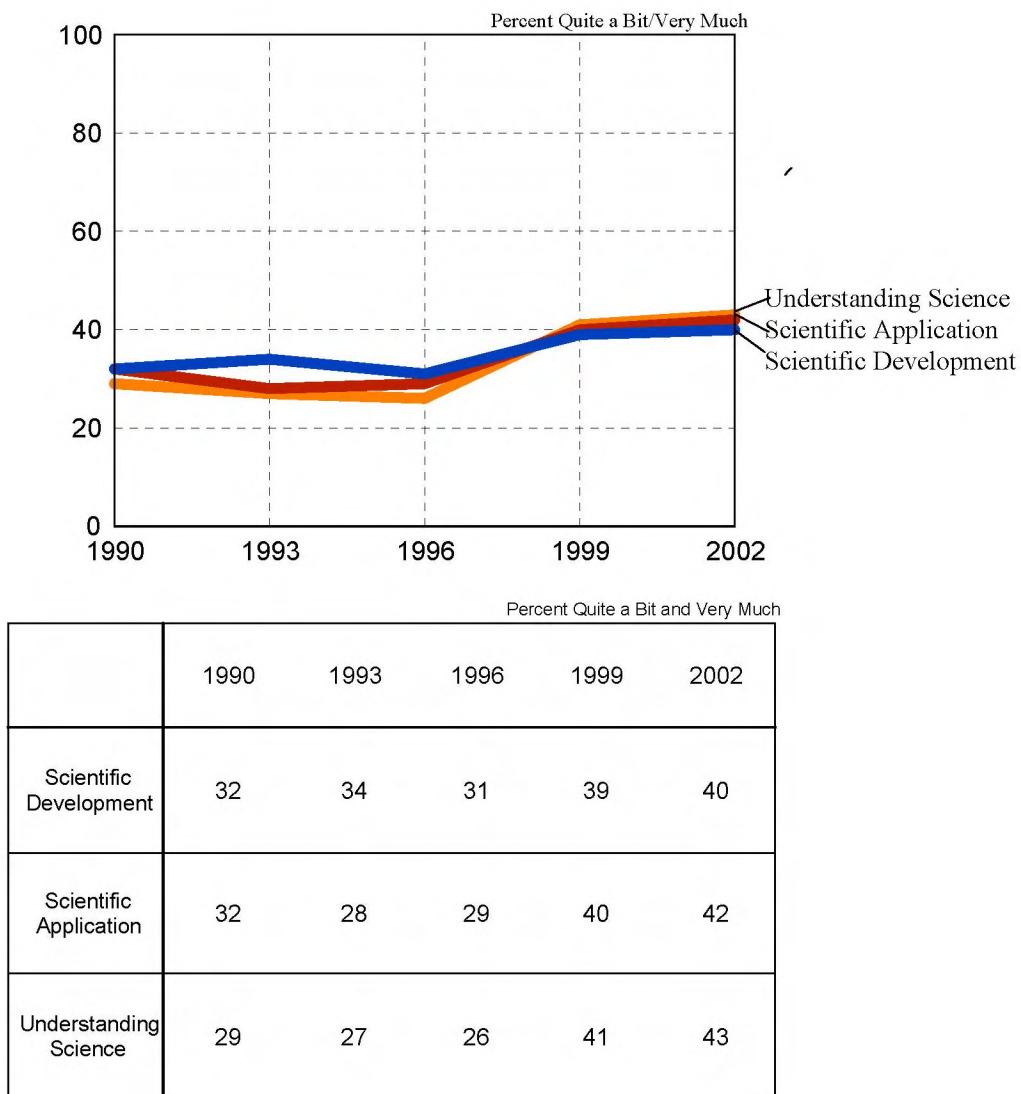
	1990	1993	1996	1999	2002
Understanding Self	68	71	64	72	78
Understanding Others	73	69	66	72	75
Ethics and Values	60	60	57	65	68
Team Member	60	55	55	62	66
Health	36	31	31	40	40

### Gains in Science and Technology (Table 19)

- ★ Understanding the nature of science and experimentation.
- ★ Becoming aware of the consequences of new applications in science and technology.
- ★ Understanding new developments in science and technology.

The trend is upward from 1990 to 2002 in gain in performance in understanding new developments in science and technology; becoming aware of the consequences of new applications in science and technology; and in understanding the nature of science and experimentation.

**Gains in Science and Technology**

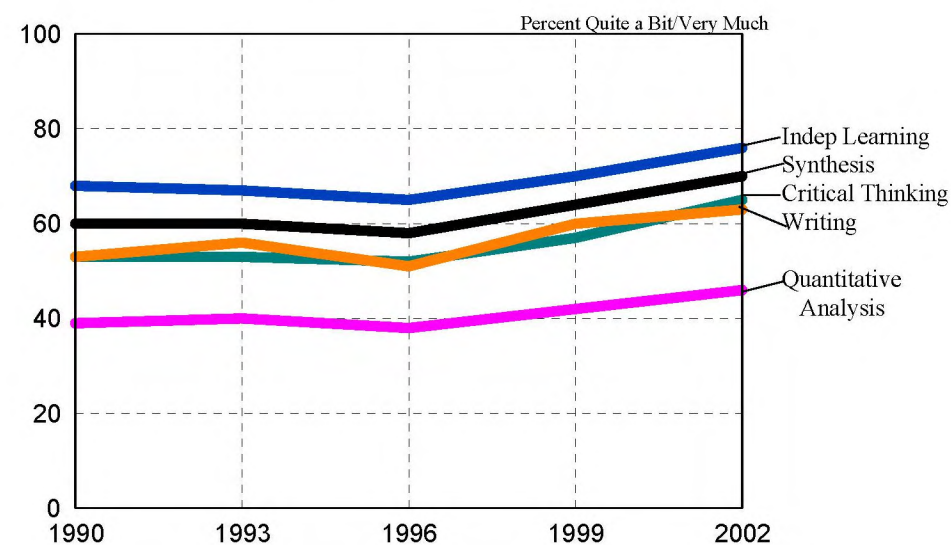


### Gains in Intellectual Skills (Table 19)

- ★ Learning on your own, pursuing ideas, and finding information you need.
- ★ Putting ideas together, seeing relationships, similarities, and differences between idea.
- ★ Thinking analytically and logically.
- ★ Writing clearly and effectively.
- ★ Analyzing quantitative problems (understanding probabilities, proportions, etc.).

The trend is slightly downward from 1990 to 1996 then upward from 1996 to 2002 in gain in performance in independent learning, pursuing ideas, and finding needed information; putting ideas together, seeing relationships, similarities, and differences between ideas; thinking analytically and logically; and in analyzing quantitative problems. Writing, however, has gone up slightly from 1990 to 2002 with a dip in gains from 1999 to 2002.

Gains in Intellectual Skills



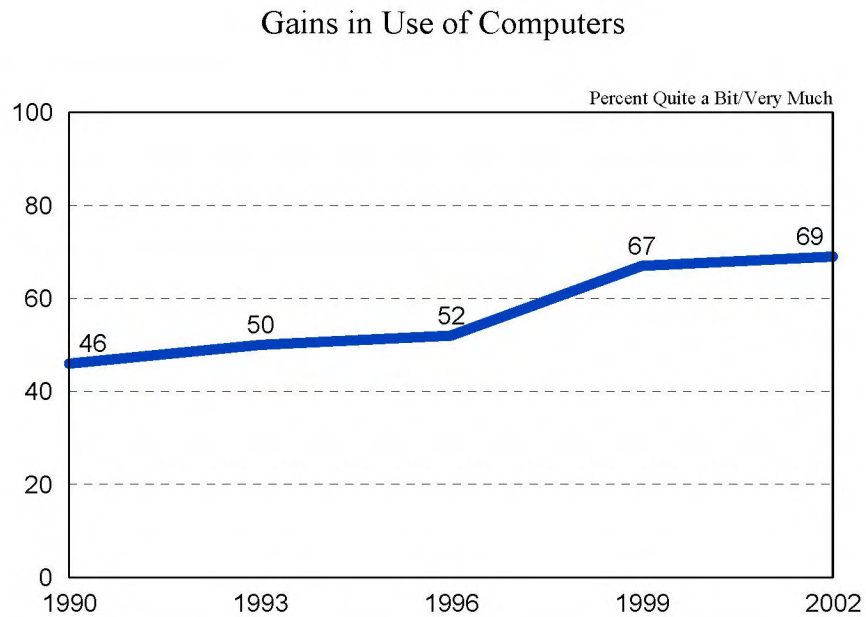
Percent Quite a Bit and Very Much

	1990	1993	1996	1999	2002
Independent Learning	68	67	65	70	76
Synthesis	60	60	58	64	70
Critical Thinking	53	53	52	57	65
Writing	53	56	51	60	62
Quantitative Analysis	39	40	38	42	46

### Gains in Use of Computers (Table 19)

★ Using computers and other information technologies.

The trend in using computers and other information technologies is upward from 1990 to 2002. The gain in performance increased sharply from 1996 to 1999 and levels off from 1999 to 2002.



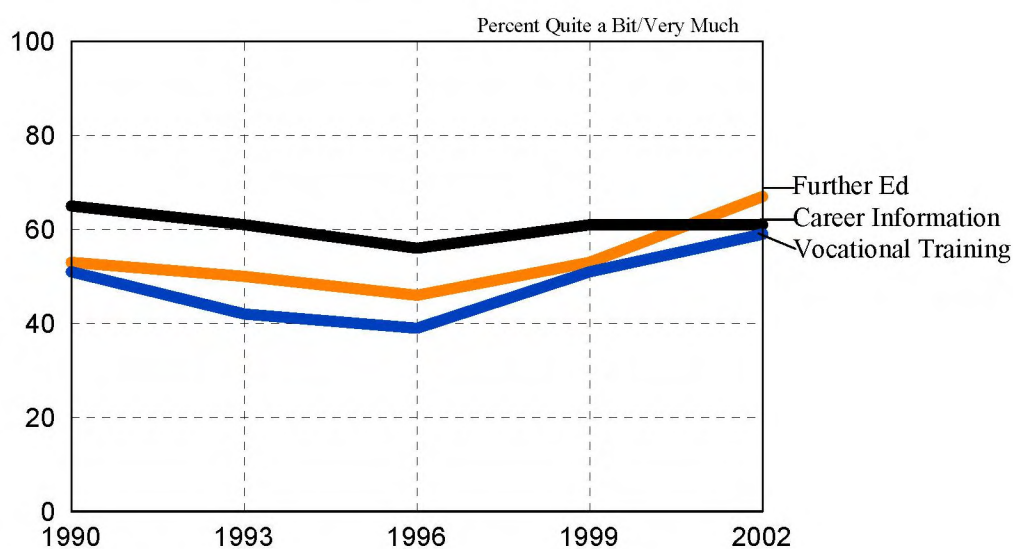


### Gains in Vocational Competence (Table 19)

- ★ Acquiring background and specialization for further education in some professional, scientific, or scholarly field.
- ★ Gaining a range of information that may be relevant to a career
- ★ Vocational training-acquiring knowledge and skills applicable to a specific job or type of work.

Continuing education, career information, and vocational training experienced a downward trend in gain in performance from 1990 to 1996. From 1996 to 2002, the trend was upward for continuing education and vocational training. Gain in performance in career information declined from 1990 to 1996 then increased slightly from 1996 to 1999 and leveled off in 2002 never regaining its 1990 high.

### Gains in Vocational Competence



Percent Quite a Bit and Very Much

	1990	1993	1996	1999	2002
Further Education	53	50	46	53	67
Career Information	65	61	56	61	61
Vocational Training	51	42	39	51	59

### **3. Data Tables on Student Characteristics**

**Table 1**  
**Student Characteristics for 1990, 1993, 1996, 1999 and 2002**

Item	1990 %	1993 %	1996 %	1999 %	2002 %	Norm %
<b>1 Age</b>						
22 or younger	66	64	63			
23 to 27	25	25	26			
28 or older	9	11	12			
<b>Age</b>						
19 or younger				25	22	65
20 to 23				51	53	30
24 to 29				16	16	3
30 to 39				6	6	1
40 to 55				3	3	0
Over 55				<1	1	0
<b>2 Gender</b>						
Male	39	38	36	37	42	37
Female	61	62	64	63	58	63
<b>3 Marital status</b>						
Not married	92	92	91	89	92	97
Married	8	8	9	8	7	2
Divorced				3	1	1
Separated				0	0	0
Widowed				<1	0	0
<b>4 College classification</b>						
Freshman/first year	16	16	16	16	18	57
Sophomore	17	17	16	17	18	14
Junior	28	29	26	26	24	13
Senior	40	38	42	40	40	16
<b>5 Begin college here or transfer</b>						
Started here	67	63	59	66	63	90
Transferred from another institution	33	37	41	34	37	10
<b>6 Residence during school year</b>						
Dormitory or other campus housing	30	23	21	21	21	71
Private housing near college	5	7	6			
Housing away from campus	20	23	24			
With parents or relatives	44	47	49			
Residence within walking distance				13	16	8
Residence within driving distance				66	62	18
Fraternity or sorority house	0	0	0	<1	1	3



**Table 1 (Continued)**  
**Student Characteristics for 1990, 1993, 1996, 1999 and 2002**

Item	1990 %	1993 %	1996 %	1999 %	2002 %	Norm %
<b>7 Who live with during school year (Mark all that apply)</b>						
No one, I live alone				7	9	0
One or more other students				25	32	71
My spouse or partner				12	12	3
My child or children				4	4	1
My parents				50	40	7
Other relatives				9	10	2
Friends who are not students here				4	5	2
Other people				2	4	1
<b>8 Have access to computer where you work, or nearby that you can use for your school work</b>				95	98	98
<b>9 Most grades at UHM up to now</b>						
A	11	15	15	17	18	17
A-, B+	27	28	27	29	32	32
B	35	30	29	26	24	28
B-, C+	23	22	22	23	19	19
C, C-, or lower	4	7	8	6	7	5
<b>10 Major field of study</b>	Mark One	Mark One	Mark One	Mark All That Apply	Mark All That Apply	Mark All That Apply
Agriculture				1	1	1
Biological/Life Sciences	3	6	6	6	8	7
Business	20	20	21	20	20	18
Communication				6	6	5
Computer and Information Sciences	1	2	3	7	11	3
Education	10	12	12	14	9	7
Engineering	8	8	8	6	8	5
Ethnic, Cultural Studies, and Area Studies	1	2	3	3	2	0
Foreign Languages	1	2	2			
Foreign Language and Literature				3	5	1
Health-Related Fields	13	11	10	9	6	5
History				2	2	1
Humanities	4	3	4	4	6	2
Liberal or General Studies				4	3	1
Mathematics				1	2	0
Multi/Interdiscip. and Area Studies				1	1	0
Parks, Rec. Leisure Studies, Sports Manag.				<1	0	1
Physical Sciences	2	3	3	1	3	1
Pre-Professional				5	4	2
Public Administration				<1	1	1
Social Sciences	10	12	13	12	14	8
Visual and Performing Arts	2	6	6	5	7	3
Undecided	4	4	5	3	4	4
Other	21	11	9	6	11	5

**Table 1 (Continued)**  
**Student Characteristics for 1990, 1993, 1996, 1999 and 2002**

<b>Item</b>	<b>1990 %</b>	<b>1993 %</b>	<b>1996 %</b>	<b>1999 %</b>	<b>2002 %</b>	<b>Norm %</b>
<b>11 Parents graduated from college</b>						
No	51	49	47	41	36	28
Yes, both parents	26	25	27	30	34	45
Yes, father only	13	14	15	15	15	16
Yes, mother only	11	13	12	12	12	10
Don't know				2	3	1
<b>12 Expect to enroll in advanced degree</b>						
Yes	68	76	73	70	68	72
No	32	24	27	30	32	28
<b>13 Credit hours taking this term</b>						
6 or fewer				6	6	2
7 - 11				9	8	3
12 - 14				52	52	37
15 - 16				23	24	42
17 or more				9	9	16
<b>14 Hours spent on out of class academic work activities</b>						
5 or fewer hours a week				17	18	11
6 - 10 hours a week				30	29	26
11 - 15 hours a week				20	19	23
16 - 20 hours a week				15	15	20
21 - 25 hours a week				7	9	10
26 - 30 hours a week				5	5	6
more than 30 hours a week				6	5	5
<b>15 Hours working on campus for pay</b>						
None; no job				55	58	71
1 - 10 hours weekly				12	11	16
11 - 20 hours weekly				31	29	12
21 - 30 hours weekly				1	2	1
31 - 40 hours weekly				1	1	0
More than 40 hours weekly				0	1	0
<b>16 Hours working off campus for pay</b>						
None; no job				34	53	71
1 - 10 hours weekly				16	11	10
11 - 20 hours weekly				27	18	11
21 - 30 hours weekly				13	11	5
31 - 40 hours weekly				7	5	2
More than 40 hours weekly				3	2	1

**Table 1 (Continued)**  
**Student Characteristics for 1990, 1993, 1996, 1999 and 2002**

<b>Item</b>	<b>1990 %</b>	<b>1993 %</b>	<b>1996 %</b>	<b>1999 %</b>	<b>2002 %</b>	<b>Norm %</b>
<b>17 How job affects school work</b>						
I don't have a job				22	30	55
My job does not interfere with my sch work				23	21	19
My job takes some time from my sch work				47	39	23
My job takes a lot of time from sch work				9	11	3
<b>18 Racial or ethnic identification</b>	<b>Mark One</b>	<b>Mark One</b>	<b>Mark One</b>	<b>Mark All That Apply</b>	<b>Mark All That Apply</b>	
American Indian or other Native American	<1	<1	<1	3	3	2
Asian or Pacific Islander	71	74	78	81	74	14
Black or African American	1	<1	<1	1	1	6
Caucasian (other than Hispanic)	17	17	13	24	25	74
Mexican-American				1	2	2
Puerto Rican				1	2	1
Other Hispanic	1	1	2	2	3	2
Other	10	8	7	7	7	4
<b>19 Number of ethnic groups of students</b>						
Belong to 1 of the above groups				85		
Belong to 2 of the above groups				10		
Belong to 3 of the above groups				4		
Belong to 4 of the above groups				1		

**Table 1 (Continued)**  
**Student Characteristics for 1999 and 2002**

Item		None	Very Little	Less Than Half	About Half	More Than Half	All or Nearly All	Year
		%	%	%	%	%	%	
<b>How do you meet college expenses?</b>								
20	Self (job, savings, etc.)	13	37	20	8	7	15	1999
		14	35	20	12	7	13	2002
		17	44	22	7	4	5	Norm
21	Parents	17	15	9	9	12	39	1999
		17	15	12	11	10	36	2002
		8	12	12	11	15	42	Norm
22	Spouse or partner	88	6	3	2	1	2	1999
		88	3	3	2	2	3	2002
		96	2	1	1	0	0	Norm
23	Employer support	90	6	1	1	1	1	1999
		87	6	3	1	2	1	2002
		91	5	2	1	1	0	Norm
24	Scholarships and grants	49	7	10	9	9	16	1999
		45	9	11	10	10	16	2002
		31	21	19	10	9	10	Norm
25	Loans	64	5	6	7	8	11	1999
		66	4	6	8	7	9	2002
		47	9	16	11	10	8	Norm
26	Other sources	83	5	4	2	2	3	1999
		83	5	3	3	3	3	2002
		86	7	3	2	1	2	Norm

## **4. Data Tables on College Activities**

**Table 2**  
**Library**  
**1990, 1993, 1996, 1999, 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Used the library as a quiet place to read or study materials you brought with you.	16	50	20	14	34	1365	1990
	15	48	21	16	37	1123	1993
	22	48	16	14	31	994	1996
	20	50	20	11	31	937	1999
	28	49	14	9	23	1215	2002
	29	48	14	9	23		Norm
2. Found something interesting while browsing in the library.	36	42	15	6	21	1368	1990
	44	40	12	5	17	1122	1993
	44	40	11	5	16	978	1996
	33	52	11	4	15	935	1999
	36	48	11	5	17	1213	2002
	41	44	11	4	15		Norm
3. Asked a librarian or staff member for help in finding information on some topic.	29	54	14	3	17	1364	1990
	36	53	9	2	11	1123	1993
	35	51	10	4	14	983	1996
	29	52	14	5	19	933	1999
	37	46	13	4	18	1213	2002
	28	50	16	6	22		Norm
4. Read assigned materials other than textbooks in the library (reserve readings, etc.).*	28	53	16	4	19	1364	1990
	34	52	11	3	14	1122	1993
	37	48	11	3	15	981	1996
	35	48	11	6	17	935	1999
	46	41	10	3	13	1209	2002
	39	43	13	5	18		Norm
5. Used an index or database (computer, card catalog, etc.) to find material on some topic.*	9	47	28	17	44	1366	1990
	12	43	28	18	45	1124	1993
	13	43	28	16	44	989	1996
	13	37	29	22	50	931	1999
	19	40	26	15	41	1215	2002
	14	40	28	18	46		Norm
6. Developed a bibliography or references list for a term paper or other report.	19	46	25	11	35	1368	1990
	24	43	22	12	33	1121	1993
	24	43	20	12	33	974	1996
	25	37	24	14	38	935	1999
	27	39	21	13	34	1212	2002
	25	38	23	14	37		Norm
7. Gone back to read a basic reference or document that other authors referred to.	63	31	5	1	6	1368	1990
	63	30	5	2	7	1121	1993
	64	29	5	2	7	983	1996
	62	30	6	3	8	932	1999
	59	31	8	2	10	1212	2002
	65	27	6	3	9		Norm
8. Made a judgment about the quality of information obtained from the library, World Wide Web, or other sources.	32	42	18	8	26	928	1999
	30.5	38.4	20.7	10.4	31.1	1207	2002
	27.6	40.6	21.4	10.5	32		Norm

\*Broader conception of the learning environment starting from the fourth edition of the CSEQ or 1999.

**Table 3**  
**Computer and Information Technology**  
**1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Used a computer or word processor to prepare reports or papers.	5 2 1	8 6 5	14 13 14	74 79 81	87 92 94	936 1215	1999 2002 Norm
2. Used e-mail to communicate with an instructor or other students.	7 2 2	18 14 9	17 18 14	57 67 76	75 87 90	937 1211	1999 2002 Norm
3. Used a computer tutorial to learn material for a course or developmental/remedial program.	52 43 36	27 28 32	10 12 15	11 18 18	21 31 33	931 1210	1999 2002 Norm
4. Participated in class discussions using an electronic medium (e-mail, list-serve, chat group, etc.).	48 40 49	26 30 25	12 12 12	15 19 15	26 33 26	935 1211	1999 2002 Norm
5. Searched the World Wide Web or Internet for information related to a course.	10 2 4	27 14 20	23 22 26	40 62 51	63 85 77	935 1209	1999 2002 Norm
6. Used a computer to retrieve materials from a library not at this institution.	52 48 54	29 26 25	9 10 9	10 16 12	19 27 21	934 1210	1999 2002 Norm
7. Used a computer to produce visual displays of information (charts, graphs, spreadsheets, etc.).	27 17 23	32 25 34	20 21 21	22 37 23	42 59 44	936 1212	1999 2002 Norm
8. Used a computer to analyze data (statistics, forecasting, etc.).	44 34 41	30 28 31	12 14 14	15 24 15	27 40 29	935 1209	1999 2002 Norm
9. Developed a Web page or multimedia presentation.	53 40 57	26 30 23	8 13 9	14 18 11	22 31 20	936 1211	1999 2002 Norm

**Table 4**  
**Course Learning**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Completed the assigned readings for class.	2	25	38	35	73	941	1999
	3	26	37	35	72	1214	2002
	1	20	37	42	79		Norm
2. Took detailed notes in class.	1	13	39	47	86	1366	1990
	1	10	33	56	89	1121	1993
	1	10	32	57	89	1014	1996
	0	10	32	58	90	940	1999
	2	13	33	53	85	1212	2002
	1	9	28	62	90		Norm
3. Contributed to class discussions.	4	46	33	17	50	1367	1990
	4	40	32	34	66	1122	1993
	4	41	35	20	55	1016	1996
	4	40	34	22	56	933	1999
	4	41	29	26	55	1210	2002
	4	34	36	27	62		Norm
4. Developed a role play, case study, or simulation for a class.	36	40	16	9	25	940	1999
	38	37	17	9	26	1211	2002
	45	35	12	7	19		Norm
5. Tried to see how different facts and ideas fit together.	3	34	43	21	63	1354	1990
	5	32	40	23	63	1116	1993
	4	33	39	25	63	1013	1996
	5	32	35	28	63	939	1999
	4	29	36	31	68	1208	2002
	4	28	36	31	68		Norm
6. Summarized major points and information from your class notes or readings.	6	39	38	18	55	1365	1990
	8	39	34	20	53	1121	1993
	8	35	36	22	57	1012	1996
	5	29	38	29	66	940	1999
	7	28	37	28	66	1211	2002
	5	27	36	32	68		Norm
7. Worked on a class assignment, project, or presentation with other students.	6	30	32	32	64	939	1999
	5	29	33	34	67	1212	2002
	5	32	35	29	63		Norm
8. Applied material learned in a class to other areas (your job or internship, other courses, relationships with friends, family, co-workers, etc.).	5	31	36	28	63	941	1999
	5	31	34	29	65	1214	2002
	5	33	36	25	61		Norm
9. Used information or experience from other areas of your life (job, internship, interactions with others) in class discussions or discussions.	4	33	36	27	63	940	1999
	5	29	36	30	67	1208	2002
	5	34	38	24	62		Norm



**Table 4 (Continued)**  
**Course Learning**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
10. Tried to explain the material from a course to someone else (another student, friend, co-worker, family member.).	4	44	35	17	52	1366	1990
	5	44	33	19	52	1122	1993
	4	42	37	17	54	1015	1996
	2	32	39	28	66	940	1999
	3	29	38	31	69	1209	2002
	1	27	42	30	72		Norm
11. Worked on a paper or project where you had to integrate ideas from various sources.	7	33	39	22	60	1364	1990
	8	34	36	23	59	1118	1993
	7	31	38	24	62	1014	1996
	4	27	38	31	69	935	1999
	5	24.2	36.4	34.4	71	1210	2002
	3.7	26.2	37	33	70		Norm

**Table 5**  
**Experiences in Writing**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Used a dictionary or thesaurus to look up the proper meaning of words.	1	23	38	37	75	1358	1990
	2	25	36	38	73	1118	1993
	2	28	33	38	71	985	1996
	3	28	33	36	69	939	1999
	5	31	31	34	64	1181	2002
	5	28	31	37	68		Norm
2. Thought about grammar sentence structure, paragraphs, word choice and sequence of ideas or points as you were writing.	2	20	40	38	78	1358	1990
	3	21	36	41	77	1118	1993
	2	18	37	43	80	980	1996
	2	12	36	51	87	940	1999
	2	13	35	51	86	1179	2002
	2	13	32	53	86		Norm
3. Asked other people to read something you wrote to see if it was clear to them.	16	35	27	22	49	1368	1990
	16	42	22	20	42	1118	1993
	16	40	23	21	45	989	1996
	11	37	27	25	52	938	1999
	11	37	29	23	52	1177	2002
	8	30	30	31	62		Norm
4. Referred to a book or manual about style of writing, grammar, etc.	17	41	26	16	41	1368	1990
	21	41	23	15	38	1116	1993
	19	42	22	17	39	985	1996
	17	44	22	17	39	938	1999
	18	42	23	17	42	1180	2002
	16	39	26	19	45		Norm
5. Revised a paper or composition two or more times before you were satisfied with it.	18	36	25	20	45	1368	1990
	20	35	27	18	45	1116	1993
	18	40	23	20	43	979	1996
	11	34	28	28	55	939	1999
	11	34	30	24	55	1178	2002
	10	32	29	29	58		Norm
6. Asked an instructor or staff member for advice and help to improve your writing.	31	41	17	10	28	1368	1990
	37	38	17	9	25	1117	1993
	36	39	16	10	26	994	1996
	29	42	18	12	30	939	1999
	31	39	20	10	30	1174	2002
	23	39	23	15	38		Norm
7. Prepared a major written report for a class (20 pages or more).	61	24	9	7	15	938	1999
	56	27	10	7	18	1177	2002
	68	20	7	6	13		Norm

**Table 6**  
**Experiences with Faculty**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Talked with your instructor about information related to a course you were taking (grades, make-up work, assignments, etc.).	5	50	31	14	45	1362	1990
	7	47	30	16	46	1107	1993
	7	47	31	15	46	1003	1996
	4	44	33	19	52	937	1999
	5	42	32	22	54	1175	2002
	5	42	34	20	53		Norm
2. Discussed your academic program or course selection with a faculty member.	18	50	21	12	32	936	1999
	17	47	23	13	36	1175	2002
	13	47	27	13	40		Norm
3. Discussed ideas for a term paper or other class project with a faculty member.	22	53	20	5	25	1367	1990
	27	51	16	6	22	1119	1993
	27	53	15	5	20	1004	1996
	23	50	18	10	28	936	1999
	22	45	21	11	33	1175	2002
	22	47	22	10	31		Norm
4. Discussed your career plans and ambitions with a faculty member.	45	42	10	3	13	1365	1990
	46	42	9	4	13	1120	1993
	46	42	9	4	13	1005	1996
	33	46	13	8	21	936	1999
	30	44	17	9	26	1176	2002
	28	46	18	9	27		Norm
5. Worked harder as a result of feedback from an instructor	14	38	31	17	48	934	1999
	15	37	31	17	49	1175	2002
	14	38	33	15	48		Norm
6. Socialized with a faculty member outside of class (had a snack or soft drink, etc.).	76	20	4	1	5	1367	1990
	81	15	3	1	4	1122	1993
	84	13	2	1	3	1009	1996
	67	27	4	2	6	936	1999
	62	27	7	4	11	1174	2002
	61	27	8	4	12		Norm
7. Participated with other students in a discussion with one or more faculty members outside of class.	50	36	8	5	13	937	1999
	47	34	13	6	20	1172	2002
	49	35	11	5	16		Norm
8. Asked your instructor for comments and criticisms about your academic performance.	33	45	15	7	22	1363	1990
	38	43	14	5	19	1122	1993
	38	42	14	5	20	1007	1996
	38	41	13	8	21	936	1999
	41	36	16	7	24	1172	2002
	34	40	18	8	26		Norm
9. Worked harder than you thought you could to meet an instructor's expectations and standards.	20	40	25	16	40	937	1999
	24	36	28	13	41	1173	2002
	21	39	27	13	40		Norm
10. Worked with a faculty member on a research project.	88	9	2	1	3	1367	1990
	87	9	2	2	4	1120	1993
	87	10	2	2	3	1008	1996
	78	15	4	3	7	935	1999
	74.6	15.8	5.6	4	10	1175	2002
	76	15	6	4	9		Norm

**Table 7**  
**Art, Music and Theater Experiences\***  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Talked about art (painting, sculpture, architecture, artists, etc.) with other students, friends or family members.	41	40	11	8	19	1356	1990
	48	37	9	6	15	1114	1993
	49	38	7	6	13	1010	1996
	29	39	16	17	33	936	1999
	30	37	19	14	32	1176	2002
	25	35	20	20	40		Norm
2. Went to an art exhibit/gallery or a play, dance, or other theater performance, on or off the campus.	41	45	10	4	14	1359	1990
	49	40	6	4	11	1115	1993
	56	34	7	3	10	1014	1996
	28	47	15	11	25	936	1999
	31	46	14	8	23	1178	2002
	24	43	19	15	33		Norm
3. Participated in some art activity (painting, pottery, weaving drawing, etc.) or theater event, or worked on some theatrical production (acted, danced, worked on scenery, etc.) on or off the campus.	60	23	8	9	17	1339	1990
	68	19	6	8	13	1093	1993
	68	19	6	7	13	1001	1996
	48	27	13	12	25	935	1999
	55	25	8	12	19	1175	2002
	57	22	10	12	21		Norm
4. Talked about music or musicians (classical popular etc.) with other students, friends or family members.	25	44	20	11	31	1357	1990
	30	40	19	10	29	1112	1993
	30	42	17	11	28	1012	1996
	16	32	26	25	52	933	1999
	17	30	26	27	51	1175	2002
	14	28	27	32	58		Norm
5. Attended a concert or other music event on or off the campus.*	59	30	7	3	11	1359	1990
	53	35	8	3	11	1114	1993
	55	34	7	3	11	1014	1996
	23	44	19	14	33	931	1999
	30	41	16	13	30	1172	2002
	19	39	22	20	42		Norm
6. Participated in some music activity (orchestra, chorus, etc.) on or off campus.	85	9	3	3	6	1332	1990
	83	9	4	4	8	1101	1993
	85	7	3	5	8	993	1996
	61	21	8	10	18	932	1999
	62	19	7	12	18	1175	2002
	62	17	8	13	21		Norm
7. Read or discussed the opinions of art, music, or drama critics.	71	24	4	2	5	1359	1990
	78	17	3	3	6	1114	1993
	78	17	4	2	6	1013	1996
	47	34	11	8	20	935	1999
	47	31	12	10	21	1173	2002
	46	31	12	11	23		Norm

\*All items were modified in 1999 and expanded to reflect opportunities for learning experiences off campus.

**Table 8**  
**Campus Facilities**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Used a campus lounge to relax or study by yourself.	48	34	11	6	18	1365	1990
	53	30	10	7	17	1120	1993
	57	28	9	6	15	1010	1996
	37	37	16	10	27	938	1999
	37	39	16	9	25	1162	2002
	14	40	27	19	46		Norm
2. Met other students at some campus location (campus center, etc.) for a discussion.*	64	26	7	3	10	1364	1990
	67	26	5	2	7	1118	1993
	71	23	4	3	7	1009	1996
	16	46	23	15	39	939	1999
	18	41	24	17	41	1164	2002
	13	43	28	16	44		Norm
3. Attended a cultural or social event in the campus center or other campus location.*	57	35	6	2	8	1363	1990
	59	34	6	1	7	1118	1993
	60	33	5	2	8	1011	1996
	40	46	11	3	14	937	1999
	43	44	10	3	13	1162	2002
	25	45	19	10	30		Norm
4. Went to a lecture or panel discussion.*	55	38	6	1	7	1365	1990
	62	34	4	1	5	1117	1993
	54	39	6	2	7	1011	1996
	54	33	8	5	13	930	1999
	55	35	6	4	10	1162	2002
	32	42	15	11	26		Norm
5. Used a campus learning lab or center to improve study or academic skills (reading, writing, etc.).	63	25	8	4	12	935	1999
	66	21	9	4	13	1159	2002
	50	31	13	6	19		Norm
6. Used campus recreational facilities (pool, fitness equipment, courts, etc.).	53	28	11	7	19	936	1999
	47	29	13	11	23	1163	2002
	14	30	26	30	56		Norm
7. Played a team sport (intramural, club, intercollegiate).**	79	10	6	6	12	1362	1990
	84	10	3	3	6	1118	1993
	84	9	4	4	8	1009	1996
	76	11	7	6	13	937	1999
	78	12	5	6	10	1156	2002
	54	19	13	14	27		Norm
8. Followed a regular schedule of exercise, or practice in some sport, on campus.	53	25	11	11	22	1356	1990
	57	22	11	10	21	1119	1993
	58	22	11	9	20	1003	1996
	46	26	14	15	28	935	1999
	50	24	13	13	25	1159	2002
	30	29	18	23	41		Norm

\*Item was modified in 1999 and expanded to include facilities beyond the campus center.

\*\*Item was modified in 1999 and expanded to include any team sport besides intramurals.

**Table 9**  
**Clubs and Organizations**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Attended a meeting of a campus club, organization, or student government group.	55	25	11	10	20	1363	1990
	62	21	9	8	17	1116	1993
	61	23	8	8	16	984	1996
	62	22	8	8	16	936	1999
	55	23	10	12	22	1157	2002
	33	28	16	23	39		Norm
2. Worked on a campus committee, student organization, or project (publications, student government, special event, etc.).	70	17	6	8	14	1363	1990
	78	12	5	6	11	1121	1993
	79	11	4	6	10	958	1996
	78	12	4	6	10	938	1999
	71	14	6	9	16	1154	2002
	55	19	11	15	26		Norm
3. Worked on an off-campus committee, organization, or project (civic group, church group, community event, etc.).	64	20	8	8	16	936	1999
	65	19	8	8	16	1153	2002
	64	20	8	8	16		Norm
4. Met with a faculty member or staff advisor to discuss the activities of a group or organization.	80	14	3	3	6	1357	1990
	86	9	3	3	5	1118	1993
	85	10	2	3	5	979	1996
	80	14	4	3	6	932	1999
	74	18	4	4	8	1158	2002
	70	18	7	5	12		Norm
5. Managed or provided leadership for a club or organization, on or off the campus.	73	13	6	9	15	930	1999
	67	14	8	11	19	1156	2002
	63	16	9	12	21		Norm

**Table 10**  
**Personal Experiences**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Told a friend or family member why you reacted to another person the way you did.*	5	35	30	29	60	1362	1990
	9	32	33	27	59	1113	1993
	11	32	30	27	57	1004	1996
	6	27	29	38	67	936	1999
	5	25	37	33	69	1162	2002
	5	22	30	44	74		Norm
2. Discussed with other students friend, or family member why some people get along smoothly, and others do not.*	17	41	25	17	42	1362	1990
	20	41	24	15	39	1112	1993
	22	38	26	14	40	1008	1996
	7	29	30	35	64	936	1999
	8	27	36	29	64	1159	2002
	6	25	31	39	70		Norm
3. Asked a friend to help with a personal problem.	11	36	26	27	53	1360	1990
	16	34	26	24	50	1113	1993
	16	35	26	24	49	1003	1996
	9	28	26	37	62	937	1999
	11	30	29	30	58	1162	2002
	7	25	27	41	68		Norm
4. Read articles or books about personal growth, self-improvement, or social development.*	30	43	17	11	27	1362	1990
	31	44	17	8	25	1113	1993
	31	43	18	8	26	1008	1996
	27	39	19	15	34	935	1999
	32	39	17	13	29	1162	2002
	34	37	17	13	29		Norm
5. Identified with a character in a book, movie, or television show and wondered what you might have done under similar circumstances.*	16	41	26	17	43	1361	1990
	16	44	26	15	40	1113	1993
	18	41	24	17	41	1007	1996
	11	34	29	26	55	935	1999
	12	36	28	24	49	1157	2002
	9	32	30	29	59		Norm
6. Taken a test to measure your abilities, interests or attitudes.	37	44	13	7	20	1360	1990
	41	42	11	6	17	1112	1993
	39	42	13	6	19	1011	1996
	27	48	15	10	25	934	1999
	23	44	20	13	31	1162	2002
	23	43	20	14	34		Norm
7. Asked a friend to tell you what he/she really thought about you.	33	41	15	10	26	1362	1990
	36	40	15	8	24	1111	1993
	39	38	14	8	23	1006	1996
	28	40	18	14	32	936	1999
	30	40	17	14	31	1160	2002
	23	39	21	18	39		Norm
8. Talked with a faculty member, counselor or other staff member about personal concerns.*	75	18	4	3	7	1362	1990
	76	17	5	2	7	1111	1993
	79	15	4	2	6	1004	1996
	60	30	6	4	10	933	1999
	62	27	7	4	11	1155	2002
	58	28	9	6	14		Norm

\*Item was revised in 1999 to include a broader learning context.

**Table 11**  
**Student Acquaintances**  
**1990, 1993, 1996, 1999, 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Became acquainted with students whose interests were different from yours.	6	44	32	17	49	1363	1990
	6	46	30	18	48	1121	1993
	7	46	29	18	47	1009	1996
	4	43	36	17	53	937	1999
	4	40	36	20	56	1148	2002
	3	32	40	26	66		Norm
2. Became acquainted with students whose family background (economic and social) was different from yours.	4	38	35	23	58	1358	1990
	5	41	33	21	54	1118	1993
	5	40	33	22	55	1007	1996
	3	30	40	27	67	935	1999
	3	30	39	29	67	1148	2002
	2	25	41	32	73		Norm
3. Became acquainted with students whose age was different from yours.	5	35	36	24	60	1363	1990
	5	38	34	23	56	1121	1993
	5	39	34	22	56	1009	1996
	2	25	39	34	73	935	1999
	2	24	40	35	75	1146	2002
	3	26	38	33	71		Norm
4. Became acquainted with students whose race or ethnic background was different from yours.	1	28	39	32	71	1364	1990
	2	30	37	31	68	1119	1993
	2	29	36	33	69	1007	1996
	1	21	37	41	78	935	1999
	2	24	36	39	75	1148	2002
	3	31	35	31	67		Norm
5. Became acquainted with students from another country.	17	45	23	15	39	1364	1990
	20	46	21	14	35	1117	1993
	19	45	21	15	36	1003	1996
	13	44	24	19	43	935	1999
	10	43	25	22	48	1147	2002
	15	45	22	18	40		Norm
6. Had serious discussions with students whose philosophy of life or personal values were very different from yours.	23	44	22	11	34	1362	1990
	25	45	19	11	30	1119	1993
	26	42	21	11	32	1007	1996
	20	44	24	13	37	938	1999
	22	38	23	17	41	1148	2002
	13	38	29	21	50		Norm
7. Had serious discussions with students whose political opinions were very different from yours.	40	38	14	7	22	1363	1990
	35	40	16	9	25	1120	1993
	41	39	13	8	21	1009	1996
	33	41	17	10	26	936	1999
	34	35	16	14	28	1147	2002
	22	38	23	17	40		Norm
8. Had serious discussions with students whose religious beliefs were very different from yours.	32	40	18	11	28	1364	1990
	36	39	15	10	25	1118	1993
	35	40	16	10	25	1007	1996
	31	38	20	11	31	937	1999
	29	37	19	16	34	1147	2002
	16	37	26	21	47		Norm



**Table 11 (Continued)**  
**Student Acquaintances**  
**1990, 1993, 1996, 1999, 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
9. Had serious discussions with students whose race or ethnic background was different from yours.	23	35	22	20	13	937	1999
	24	33	22	22	45	1146	2002
	19	37	25	20	45		Norm
10. Had serious discussions with students from a country different from yours.	41	37	13	9	21	1362	1990
	45	33	13	9	22	1120	1993
	46	36	11	8	19	1007	1996
	39	37	15	10	25	936	1999
	35	34	16	16	31	1137	2002
	35	37	15	13	28		Norm

**Table 12**  
**Scientific and Quantitative Experiences**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Memorized formulas, definitions, technical terms and concepts.	14	26	32	27	59	1363	1990
	16	23	31	30	60	1119	1993
	17	26	28	30	58	1011	1996
	6	24	34	36	70	937	1999
	7	27	29	37	67	1146	2002
	5	20	31	44	75		Norm
2. Used mathematical terms to express a set of relationships.	28	35	23	14	37	1342	1990
	32	32	23	14	36	1105	1993
	32	32	20	16	36	997	1996
	19	37	25	20	44	936	1999
	21	36	22	21	43	1146	2002
	14	29	27	30	57		Norm
3. Explained your understanding of some scientific or mathematical theory, principle or concept to someone else (classmate, co-worker, etc.).*	31	40	20	8	29	1362	1990
	33	39	18	9	28	1116	1993
	32	40	18	10	28	1011	1996
	19	43	25	13	39	935	1999
	23	38	20	18	39	1144	2002
	16	36	27	22	49		Norm
4. Read articles about scientific or mathematical theories or concepts in addition to those assigned for a class.	48	36	11	5	16	1361	1990
	52	33	9	6	15	1118	1993
	51	35	8	6	14	1010	1996
	48	34	11	8	19	937	1999
	46	31	12	11	23	1146	2002
	47	31	12	10	22		Norm
5. Completed an experiment or project using scientific methods.	54	28	12	6	19	1358	1990
	52	25	12	12	23	1116	1993
	51	27	11	11	22	1009	1996
	32	38	18	12	30	936	1999
	33	33	17	17	34	1147	2002
	30	34	20	17	37		Norm
6. Practiced to improve your skill in using a piece of laboratory equipment.	58	28	10	5	14	1359	1990
	58	25	9	7	17	1118	1993
	58	25	11	7	17	1010	1996
	44	34	13	10	22	938	1999
	45	32	12	12	24	1145	2002
	46	28	14	12	26		Norm
7. Showed someone else how to use a piece of scientific equipment.*	58	31	8	4	12	1359	1990
	55	32	9	4	13	1117	1993
	57	30	9	4	13	1011	1996
	43	39	11	7	18	937	1999
	45	34	11	10	21	1148	2002
	44	32	15	10	25		Norm
8. Explained an experimental procedure to someone else.*	51	34	11	3	14	1358	1990
	49	37	10	5	14	1116	1993
	52	34	9	5	14	1009	1996
	36	43	14	7	21	934	1999
	38	38	14	10	24	1144	2002
	36	38	16	11	27		Norm

**Table 12 (Continued)**  
**Scientific and Quantitative Experiences**  
**1990, 1993, 1996, 1999, 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
9. Compared the scientific method with other methods for gaining knowledge and understanding.	43	39	12	6	18	939	1999
	44	36	11	9	21	1140	2002
	44	34	13	8	22		Norm
10. Explained to another person the scientific basis for concerns about scientific or environmental issues (pollution, recycling, alternative sources of energy, acid rain) or similar aspects of the world around you.	51	34	11	5	15	1359	1990
	52	34	10	5	15	1115	1993
	53	33	9	5	14	1008	1996
	37	41	15	6	22	938	1999
	40	36	14	10	25	1145	2002
	38	38	15	10	24		Norm

\*Item was modified in 1999 expanding the term "student" to "someone else."

## **5. Data Tables on Conversations**

**Table 13**  
**Topics of Conversation**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Current events in the news.	3	45	37	15	52	1359	1990
	5	43	35	18	53	1118	1993
	3	45	35	16	51	1013	1996
	2	37	38	24	61	931	1999
	1	30	38	31	69	1137	2002
	3	39	37	21	58		Norm
2. Social issues such as peace, justice, human rights, equality, race relations.	17	47	26	11	36	1353	1990
	17	47	25	12	37	1114	1993
	18	51	22	9	31	1009	1996
	11	44	28	17	45	930	1999
	9	41	29	21	50	1138	2002
	9	45	31	16	46		Norm
3. Different life styles, customs, and religions.	8	48	32	12	44	1357	1990
	10	46	31	14	44	1116	1993
	10	46	32	13	45	1013	1996
	6	41	35	18	53	928	1999
	5	35	36	25	61	1140	2002
	5	40	34	21	55		Norm
4. The ideas and views of other people such as writers, philosophers, historians.	35	46	13	6	19	1344	1990
	36	45	13	6	19	1102	1993
	36	44	14	7	20	1010	1996
	27	47	17	9	26	932	1999
	23	42	21	14	35	1137	2002
	22	47	21	11	31		Norm
5. The arts (painting, poetry, dance, theatrical productions, symphony, movies, etc.).	25	48	19	8	27	1359	1990
	26	47	18	10	27	1118	1993
	28	45	19	8	27	1012	1996
	16	45	23	16	39	933	1999
	17	42	25	17	41	1133	2002
	17	42	24	17	41		Norm
6. Science (theories, experiments, methods, etc.).	41	43	12	5	17	1357	1990
	44	39	12	5	17	1117	1993
	44	38	12	6	18	1011	1996
	33	46	15	7	22	933	1999
	30	44	17	10	28	1140	2002
	33	42	16	8	25		Norm
7. Computers and other technologies.	25	50	19	7	26	1354	1990
	29	44	21	7	28	1116	1993
	13	47	27	14	41	1010	1996
	8	44	30	18	48	932	1999
	7	43	27	22	50	1141	2002
	11	45	28	16	44		Norm
8. Social and ethical issues related to science and technology such as energy, pollution, chemicals, genetics, military use.	23	48	20	9	29	1351	1990
	25	48	19	9	28	1114	1993
	27	47	17	9	26	1006	1996
	19	50	22	9	31	933	1999
	17	44	24	15	40	1137	2002
	20	48	22	10	31		Norm

**Table 13 (Continued)**  
**Topics of Conversation**  
**1990, 1993, 1996, 1999, 2002**

9. The economy (employment, wealth, poverty, debt, trade, etc.).	14	49	27	10	37	1355	1990
	12	45	31	12	43	1116	1993
	15	46	26	12	38	1011	1996
	9	41	32	18	50	932	1999
	10	43	30	17	49	1138	2002
	14	48	26	13	39		Norm
10. International relations (human rights, free trade, military activities, political differences, etc.).	26	49	18	8	26	1351	1990
	31	44	17	8	25	1116	1993
	36	44	13	7	20	1010	1996
	21	48	19	11	30	933	1999
	17	42	23	18	42	1139	2002
	21	47	21	12	32		Norm

**Table 14**  
**Information in Conversations**  
**1990, 1993, 1996, 1999 and 2002**

Activity	Never	Occa- sionally	Often	Very Often	Often & Very Often	No. of Cases	Year
1. Referred to knowledge you acquired in your reading or class.	4	47	36	13	49	1351	1990
	3	46	38	13	51	1117	1993
	4	46	36	14	50	1007	1996
	3	37	39	21	60	925	1999
	3	34	37	25	64	1141	2002
	3	36	41	21	61		Norm
2. Explored different ways of thinking about the topic.	11	48	31	11	42	1349	1990
	9	49	32	10	42	1118	1993
	8	48	33	11	44	1005	1996
	5	43	36	16	52	920	1999
	4	36	39	21	60	1140	2002
	5	40	38	17	55		Norm
3. Referred to something one of your instructors said about the topic.	7	49	33	12	44	1350	1990
	8	50	32	11	43	1116	1993
	6	49	34	11	45	1008	1996
	5	45	35	15	50	920	1999
	6	39	34	21	56	1136	2002
	6	43	36	16	52		Norm
4. Subsequently read something that was related to the topic.	14	52	26	8	34	1350	1990
	19	52	22	7	30	1117	1993
	16	53	24	8	31	1005	1996
	9	49	28	14	42	920	1999
	10	42	31	17	48	1133	2002
	13	47	28	12	40		Norm
5. Changed your opinion as a result of the knowledge or arguments presented by others.	10	65	21	5	25	1350	1990
	11	69	16	3	20	1116	1993
	13	66	17	4	21	1008	1996
	8	60	24	8	31	920	1999
	9	58	24	9	35	1139	2002
	10	59	23	8	31		Norm
6. Persuaded others to change their minds as a result of the knowledge or arguments you cited.	15	60	21	5	26	1350	1990
	17	61	19	4	22	1116	1993
	16	60	19	6	24	1006	1996
	11	58	24	7	31	917	1999
	12	55	23	10	32	1131	2002
	11	55	25	10	35		Norm

## **6. Data Tables on Reading and Writing**



**Table 15**  
**Reading and Writing**  
**1990, 1993, 1996, 1999 and 2002**

Activity During This Current School Year	None	Fewer Than 5	Between 5-10	Between 10-20	More Than 20	Year
<b>Reading</b> During this current school year, about how many books have you read?						
1. Textbooks or assigned books	1 1 1 2 3 2	28 28 32 37 39 23	47 46 40 39 40 39	19 19 22 17 14 26	5 6 6 5 4 10	1990 1993 1996 1999 2002 Norm
2. Assigned packs of course readings	10 11 6	54 56 50	25 20 30	7 9 10	4 4 4	1999 2002 Norm
3. Non-Assigned books	22 21 20 31 26 31	45 48 47 48 45 49	20 18 20 13 18 12	7 8 8 4 6 5	6 6 6 4 5 4	1990 1993 1996 1999 2002 Norm
<b>Writing</b> During this current school year, about how many exams, papers, or reports have you written?						
4. Essay exams for your courses	11 11 14 10 11 9	45 45 43 39 44 32	28 30 29 32 28 30	12 10 12 14 12 21	4 4 3 5 5 8	1990 1993 1996 1999 2002 Norm
5. Term papers or other written reports	6 6 7 7 5 5	41 39 35 39 38 27	33 33 31 27 32 30	15 17 20 18 17 26	6 6 8 9 9 12	1990 1993 1996 1999 2002 Norm

## **7. Data Tables on Satisfaction with College**

**Table 16**  
**Satisfaction With College**  
**1990, 1993, 1996, 1999 and 2002**

	1990 %	1993 %	1996 %	1999 %	2002 %	Norm
1. How well do you like college?						
I am enthusiastic about it	18	21	20	17	17	42
I like it	55	54	48	48	52	43
I am more or less neutral about it	23	21	26	29	25	12
I don't like it	4	5	6	6	6	3
2. If you could start over again, would you go to the same institution you are now attending?						
Yes, definitely	20	23	18	41	20	47
Probably yes	52	53	49	41	51	38
Probably no	21	21	26	14	21	11
No, definitely	7	4	7	5	7	4
Satisfaction Index*	5.7	5.8	5.6	5.6	5.7	

\*Another way of analyzing student satisfaction is to calculate a satisfaction index or mean scale score for the above items 1 and 2. The mean scale score was derived by assigning values of 1 to 4 to the responses to the two items and then combining them to produce a scale score ranging from 2 to 8.

## **8. Data Tables on College Environment**

**Table 17**  
**College Environment**  
**1990, 1993, 1996, 1999 and 2002**

<b>ACADEMIC</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on the development of academic, scholarly, and intellectual qualities	4.8	1.3	1990
	4.8	1.3	1993
	4.6	1.4	1996
	4.8	1.4	1999
	4.9	1.4	2002
	5.6	1.2	Norm
<b>AESTHETIC</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on the development of aesthetic, expressive, and creative qualities	4.3	1.4	1990
	4.4	1.3	1993
	4.2	1.4	1996
	4.3	1.4	1999
	4.5	1.4	2002
	4.7	1.4	Norm
<b>ANALYTICAL</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on developing critical, evaluative, and analytical qualities	4.7	1.3	1990
	4.8	1.3	1993
	4.7	1.3	1996
	4.7	1.4	1999
	4.9	1.3	2002
	5.3	1.2	Norm
<b>DIVERSITY</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on developing an understanding and appreciation of human diversity	5.0	1.5	1999
	5.3	1.5	2002
	5.0	1.5	Norm

Rating: 1 = Weak Emphasis to 7 = Strong Emphasis

**Table 17 (Continued)**  
**College Environment**  
**1990, 1993, 1996, 1999 and 2002**

<b>INFORMATION LITERACY</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on developing information literacy skills (using computers, other information resources)	4.9	1.5	1999
	5.0	1.4	2002
	5.4	1.3	Norm
<b>VOCATIONAL</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on developing vocational and occupational competence	4.5	1.5	1990
	4.4	1.4	1993
	4.2	1.5	1996
	4.3	1.5	1999
	4.5	1.5	2002
	4.7	1.5	Norm
<b>RELEVANCE OF COURSES</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Emphasis on the personal relevance and practical value of your courses	4.4	1.5	1990
	4.5	1.4	1993
	4.3	1.4	1996
	4.3	1.6	1999
	4.5	1.5	2002
	4.7	1.5	Norm

Rating: 1 = Weak Emphasis to 7 = Strong Emphasis

## **9. Data Tables on College Relationships**

**Table 18**  
**College Relationships**  
**1990, 1993, 1996, 1999 and 2002**

<b>STUDENTS</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Relationship with other students, student groups, and activities	5.2	1.5	1990
	5.1	1.4	1993
1 = Competitive, uninvolved, sense of alienation	5.1	1.4	1996
	5.4	1.4	1999
7 = Friendly, supportive, sense of belonging	5.5	1.4	2002
	5.6	1.4	Norm
<b>ADMINISTRATION</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Relationships with administrative personnel and offices	3.8	1.7	1990
	3.9	1.6	1993
	3.9	1.6	1996
1 = Rigid, impersonal, bound by regulation	4.3	1.6	1999
	4.6	1.7	2002
7 = Helpful, considerate, flexible	4.7	1.5	Norm
<b>FACULTY</b>	<b>Mean</b>	<b>SD</b>	<b>Year</b>
Relationships with faculty members	4.8	1.5	1990
	4.8	1.4	1993
1 = Remote, discouraging, unsympathetic	4.8	1.4	1996
	4.9	1.5	1999
7 = Approachable, helpful encouraging	5.2	1.4	2002
	5.1	1.4	Norm



## **10. Data Tables on Estimate of Gain**

**Table 19**  
**Estimate of Gain**  
**1990, 1993, 1996, 1999 and 2002**

Activity	1 Very Little	2 Some	3 Quite a Bit	4 Very Much	3 + 4	No. of Cases	Year
1. Developing the ability to get along with different kinds of people.	4	23	49	24	73	1341	90
	4	27	45	24	69	1120	93
	6	28	42	24	66	1010	96
	7	21	41	32	72	936	99
	5	21	41	33	75	1131	02
	4	21	42	33	75		Norm
2. Understanding yourself - your abilities, interests, and personality.	7	26	42	25	68	1343	90
	5	24	45	26	71	1119	93
	9	28	39	24	64	1010	96
	6	23	42	29	72	936	99
	4	19	47	31	78	1130	02
	3	19	43	35	78		Norm
3. Learning on your own, pursuing ideas, and finding information you need.	5	27	46	22	68	1341	90
	5	28	45	23	67	1116	93
	5	30	43	23	65	1010	96
	4	26	39	31	70	923	99
	5	20	41	34	76	1130	02
	3	23	42	32	74		Norm
4. Using computers and other information technologies.	22	32	30	15	46	1340	90
	20	30	30	20	50	1119	93
	15	32	31	22	52	1004	96
	8	26	37	30	67	935	99
	8	24	35	33	69	1131	02
	5	21	35	38	74		Norm
5. Gaining a broad general education about different fields of knowledge.	5	35	46	14	60	1346	90
	5	31	48	16	64	1120	93
	4	35	45	16	61	1011	96
	6	27	45	21	66	937	99
	4	28	47	21	69	1131	02
	5	30	45	21	66		Norm
6. Developing your own values and ethical standards.	8	32	39	21	60	1343	90
	9	31	40	20	60	1119	93
	11	32	37	20	57	1011	96
	9	26	40	25	65	934	99
	8	25	40	28	68	1130	02
	7	27	39	28	67		Norm
7. Learning to adapt to change (new technologies, different jobs or personal circumstances, etc.	7	29	38	27	65	925	99
	5	24	41	30	71	1120	02
	4	23	39	34	74		Norm
8. Putting ideas together, seeing relationships, similarities, and differences between idea.	6	35	43	16	60	1339	90
	5	35	44	17	60	1118	93
	7	35	43	15	58	1007	96
	5	31	42	22	64	925	99
	4	26	45	25	70	1123	02
	4	28	43	25	68		Norm

**Table 19 (Continued)**  
**Estimate of Gain**  
**1990, 1993, 1996, 1999 and 2002**

Activity	1 Very Little	2 Some	3 Quite a Bit	4 Very Much	3 + 4	No. of Cases	Year
9. Developing the ability to function as a team member.	8	32	42	18	60	1342	90
	9	36	39	16	55	1120	93
	10	36	36	19	55	1010	96
	8	30	38	25	62	932	99
	8	26	38	29	66	1132	02
	7	29	38	26	64		Norm
10. Gaining a range of information that may be relevant to a career.	6	29	45	20	65	1345	90
	8	31	45	16	61	1119	93
	7	37	40	16	56	1012	96
	8	31	42	19	61	935	99
	6	33	42	19	61	1127	02
	6	29	43	22	65		Norm
11. Writing clearly and effectively.	8	39	39	14	53	1343	90
	8	36	40	16	56	1121	93
	10	39	39	13	51	1010	96
	10	30	42	18	60	932	99
	8	30	34	21	55	1130	02
	7	30	42	22	63		Norm
12. Awareness of other philosophies, cultures, and ways of life.							90
	8	35	39	18	57	1112	93
	10	34	38	18	56	1004	96
	8	34	39	19	58	935	99
	7	30	38	25	62	1131	02
	10	37	36	18	54		Norm
13. Thinking analytically and logically.	8	39	40	13	53	1340	90
	9	38	39	14	53	1118	93
	10	39	37	14	52	1010	96
	9	35	38	18	57	930	99
	7	29	44	21	65	1129	02
	5	29	41	25	66		Norm
14. Presenting ideas and information effectively when speaking to others	10	34	41	15	56	935	99
	8	33	39	20	59	1125	02
	9	33	41	18	59		Norm
15. Acquiring background and specialization for further education in some professional, scientific, or scholarly field.	11	36	38	16	53	1344	90
	12	39	36	14	50	1120	93
	13	42	34	11	46	1009	96
	11	36	38	15	53	939	99
	6	27	45	22	67	1127	02
	8	35	40	18	57		Norm
16. Vocational training-acquiring knowledge and skills applicable to a specific job or type or work.	14	35	33	18	51	1345	90
	17	41	30	12	42	1120	93
	21	40	28	11	39	1009	96
	12	38	34	17	51	937	99
	9	31	39	20	59	1131	02
	12	37	35	17	51		Norm

**Table 19 (Continued)**  
**Estimate of Gain**  
**1990, 1993, 1996, 1999 and 2002**

Activity	1 Very Little	2 Some	3 Quite a Bit	4 Very Much	3 + 4	No. of Cases	Year
17. Gaining knowledge about other parts of the world and other people.	16	40	29	15	44	1341	90
	13	39	30	18	48	1118	93
	17	39	29	16	44	1009	96
	17	39	28	16	44	938	99
	13	32	34	21	55	1131	02
	27	39	23	11	34		Norm
18. Seeing the importance of history for understanding the present as well as the past.	12	39	32	16	49	1341	90
	12	38	34	17	51	1119	93
	16	38	30	16	46	1008	96
	19	38	28	15	43	935	99
	17	35	30	17	48	1128	02
	22	39	26	14	40		Norm
19. Analyzing quantitative problems (understanding probabilities, proportions, etc.)	19	43	29	10	39	1331	90
	20	41	29	11	40	1104	93
	21	41	28	9	38	997	96
	21	38	29	12	42	929	99
	18	36	31	15	46	1128	02
	16	37	31	17	47		Norm
20. Understanding new developments in science and technology.	30	41	22	8	29	1341	90
	31	42	19	8	27	1120	93
	31	43	18	8	26	1011	96
	20	39	29	12	41	932	99
	18	38	29	15	43	1130	02
	20	37	29	14	43		Norm
21. Developing good health habits and physical fitness.	26	38	25	10	36	1329	90
	27	42	22	9	31	1094	93
	33	37	20	11	31	994	96
	27	34	26	14	40	933	99
	28	33	25	15	40	1130	02
	17	33	30	20	50		Norm
22. Becoming aware of the consequences of new applications in science and technology.	26	43	25	7	32	1340	90
	30	43	19	9	28	1116	93
	30	42	21	8	29	1009	96
	21	39	29	11	40	932	99
	21	37	27	15	42	1130	02
	19	39	29	13	42		Norm
23. Understanding the nature of science and experimentation.	28	41	24	8	32	1343	90
	27	39	24	10	34	1120	93
	28	41	21	10	31	1011	96
	21	39	28	11	39	933	99
	21	39	26	14	40		02
	22	38	26	14	40		Norm
24. Developing an understanding and enjoyment of art, music, and drama.	33	39	21	8	29	1345	90
	36	37	16	10	27	1117	93
	37	36	18	10	27	1010	96
	29	39	20	12	32	934	99
	28	37	22	13	35	1129	02
	28	36	22	14	36		Norm
25. Broadening your acquaintance and enjoyment of literature.	29	44	20	7	27	1343	90
	30	41	22	7	29	1119	93
	31	44	19	6	25	1009	96
	26	43	23	8	31	936	99
	26	38	23	13	36	1131	02
	26	40	24	11	35		Norm

# Appendices

**List of Research Universities in the Norms for the CSEQ**

Florida State University  
George Washington University  
Indiana University  
Iowa State University  
North Carolina University  
Ohio State University  
Stanford University  
Syracuse University  
Texas A & M University  
University of California, San Diego  
University of California, Santa Barbara  
University of Chicago  
University of Georgia  
University of Hawai'i-Mānoa  
University of Illinois at Urbana Champaign  
University of Missouri-Columbia  
University of North Carolina-Chapel Hill  
Virginia Tech University  
Washington State University